# C  ELECTRONIC BENEFITS TRANSFER/ ELECTRONIC SERVICE DELIVERY SYSTEMS

## INTRODUCTION

Electronic Benefit Transfer (EBT) is the use of electronic mechanisms to transfer value such as financial benefits to benefit recipients.  EBT may encompass cash benefits delivered through the commercial payment system (i.e., ATM networks) as in the Temporary Assistance to Needy Families (TANF) programs.  It may also entail the transfer of benefits that have value in a retail environment as in the Food Stamp Program.  In the WIC Program, EBT includes the use of an electronic food prescription that specifies particular food items, quantities of the food items that can be purchased, the time period within which the food items must be purchased, and the maximum value associated with these food item purchases.  Typically, electronic benefits are maintained in a financial account set-up for a benefit recipient.  These benefits are accessed through a card that identifies the account holder.

Electronic Service Delivery (ESD) is similar in concept to EBT; however, in addition to the delivery of financial assistance to eligible clients, ESD also includes the delivery of non-financial services.  More broadly, ESD is considered to be the use of a unique client identifier and advanced electronic technology to provide integrated and efficient client-centric service delivery across a spectrum of health care and benefit programs.  Generally, a central participant record is maintained and updated by various participating programs and/or providers.

Although the terms EBT and ESD are often used interchangeably, they have a somewhat different meaning.  Throughout this document, when reference is made to the use of electronic delivery mechanisms for financial and/or food benefits to be redeemed in a vendor environment, the term EBT will be used.  When reference is made to the use of electronic delivery mechanisms to share data across programs, often in the course of health care delivery, the term ESD will be used.  Frequently, programs will implement a combination of both EBT and ESD, but each can be implemented separately.  Additionally, although

USDA regulations define a food instrument to include paper checks, vouchers, or electronic food benefits used to provide access to WIC Authorized Foods, somewhat different data may be associated with paper food instruments and electronic food instruments.  Therefore, to avoid confusion, hereafter in this document, the term food instrument will be used to refer to paper checks and/or vouchers, while the term food benefits will be used to refer to the generic concept of food benefits or to electronic benefits.

EBT/ESD is an emerging technology under evaluation in the WIC Program, which would automate the paper food instrument issuance, redemption and data analysis and the exchange of participant information with other health agencies.  As this FRED-E was written, twelve State agencies were initiating EBT/ESD pilot projects including two State agencies (New Mexico and New Jersey) that participated in the FRED-E site visits.  USDA/FNS is encouraging State agencies to pursue EBT/ESD as a means to strengthen participant service, increase accountability and streamline the participant and vendor shopping process.  FNS has awarded special grants to State agencies interested in conducting pilots in order to develop models that other State agencies can adopt at a future time.

EBT/ESD is addressed in two ways in the FRED-E.  First, the functionality of EBT/ESD is included in the functional descriptions of the overall system.  As EBT/ESD largely includes the automation of functions currently performed in the paper system, and is a future goal for State WIC IS, it was believed most appropriate to incorporate EBT/ESD features as an alternative to the paper-based system functions.  Secondly, EBT/ESD is addressed in more detail in this appendix.  This Appendix is intended to assist State agencies in understanding the basic requirements of an EBT/ESD system, many of which deal with requirements that are outside the basic WIC IS such as grocery store electronic system interfaces.  In this way, State agencies that are considering initiating EBT/ESD can use this information for their RFPs for EBT/ESD.

As State agencies initiate new systems, they should design the new system so that the transition to EBT is as simple as possible.  Therefore, the functions and processes in FRED-E are designed to facilitate this transition.  There are several

functions where the FRED-E introduces system design features that support EBT readiness:

- *On-demand Food Instrument Printing* – This will support on-demand card issuance.  If you have a system that prints food instruments on demand, it is relatively easy to replace the printer for the food instruments with a card reader/writer.

- *UPC Database* – The FRED-E highly recommends that State agencies maintain an electronic Universal Product Code (UPC) database of WIC authorized foods and provide this file electronically to vendors, and request that vendors incorporate this feature in their store data systems. This provides the baseline data to develop a capability to support the current need to screen for unauthorized food purchases to reduce the incidence of food substitution.  In a paper system, it may also support electronic review of vendor prices if the State agency is able to obtain the UPC price data electronically from vendors.  This would support vendor selection activities as well as food cost tracking.

- *Food Obligations* – Currently, many State agencies depend on an average food package cost and a projection of participation to estimate upcoming obligations.  This data is often several months old and State agencies must factor in more recent food cost trends in an ad hoc manner to refine their estimates.  The State agency IS should use the average cost of recently redeemed food instruments to obtain a better forecast of the value of issued food instruments.  States that currently use redeemed food instruments to update their food obligations will already be in the mode of using current expenditure information to estimate obligations. In an EBT system, the same concept of using actual food costs to update obligation estimates applies, but is potentially more accurate because EBT provides information on the redeemed value of each food, as well as an indication of which specific foods are actually redeemed.

- *Food Obligations: Reconciliation* – In the EBT environment, financial reconciliation is essentially independent of food instrument reconciliation.  A key difference in the EBT environment is that the client may redeem small quantities of food, at will, in as many transactions as desired.  The paper FI, on the other hand, is an "all-or-nothing" transaction.  At least as long as both approaches (paper and electronic) are in effect, the state must perform redemption in both modes.  If the paper mode is retained as a backup or for use in some remote areas, then both forms of redemption/ reconciliation must remain in effect permanently.

- *Food Expenditures* – The State agency should consider accelerating the reconciliation process to obtain the actual cost of food instruments more rapidly.  Most State agencies run the issued to redeemed reconciliation report after the end of the issuance month.  It is possible to run the

reconciliation report more often so that actual food instrument expenditures replace the obligation. If the State agency internal IS does not have this capacity, the State agency could provide its food instrument issuance file to the bank or processor that screens WIC food instruments for payment, and the processor could do the reconciliation. States that already reconcile more frequently than monthly will be ready for the concept of ongoing expenditure status reporting that becomes possible in the EBT environment. In an EBT system, the grocery store will provide transaction data for all WIC foods purchased through the EBT system. If both paper and electronic formats are in effect, for any length of time, then there must be provisions to include both the precise redemption data from EBT with the estimated redemption data from paper FIs.

- *Rebates* – In a paper system it is difficult to know the exact type and quantity of infant formula actually sold. The FRED-E provides some methods for adjusting issuance quantities based on the redemption value of infant formula food instruments. Further, if a State agency maintained a UPC database, it may be possible for the vendor to produce a UPC record of WIC formula purchases to support the State agency's infant formula rebate bills. By getting the vendor's cooperation in aggregating WIC formula purchases from the store processing system, the State agency can take a first step toward aggregating WIC food transactions for infant formula, which in an EBT system would be for all foods. In an EBT system, the grocery store will provide transaction data for all WIC purchased foods

- *Automated Response Units (ARUs)* – Many State agencies maintain ARUs to assist participants, vendors, and clinic staff with problems or questions on WIC activities. The ARU provides a platform for future ESD/EBT systems that require the availability of assistance for system problems.

- *Mechanism for Linking Family Members* – Many State systems are including a mechanism for linking family members. This is the first step to being able to aggregate individual food prescriptions into a comprehensive family account. This linkage is being used, in one form or another, in all current EBT pilot programs. While not technically a requirement for EBT, it is almost impossible to avoid it in the real world of clients shopping in stores. The linking of family members can also promote the consolidation of information to improve scheduling and referral to other health services. In an ESD environment, this is accomplished by combining family health and appointment information on a card.

The purpose of this appendix is to present in a single, convenient location the functional requirements for a WIC EBT/ESD system. EBT is the use of an electronic mechanism to transfer value from a program to a benefit participant.

ESD is the use of a unique client identifier and advanced electronic technology to provide integrated and efficient client centric service delivery.  The intent of this appendix is to provide a high-level understanding of the basic requirements of an EBT/ESD system, many of which deal with requirements that are outside the basic WIC IS, such as grocery store electronic system interfaces.  In this way, State agencies that are considering initiating EBT and/or ESD can use this information for their Requests for Proposals for EBT/ESD.  It is important to note that these requirements are not static; as technology changes, requirements for EBT and ESD will also change.

In describing the EBT/ESD functionality, this appendix addresses the roles of various EBT stakeholders including the local agency, State agency, FNS, the EBT system component providers (whether State or private), and retailer over the course of the benefit delivery life cycle.

This appendix extracts and consolidates the functions and sub functions that were described in the functional description chapters of the FRED-E.  This appendix is targeted at those States agencies that are beginning to explore the concept of WIC EBT and/or ESD, and are interested in procuring assistance to initiate an EBT pilot.  It is also targeted at members of the contractor community that may bid on State agency EBT pilot projects.  These contractors are often familiar with EBT systems for the Food Stamps Program and other cash assistance programs, but less experienced in WIC EBT system design.  Finally, the appendix has a detailed section devoted to data flows for retailer in-store EBT processing.

A WIC State agency can implement EBT/ESD using a variety of card technologies and communication methods.  Currently, the primary methods include magnetic stripe cards for on-line WIC EBT/ESD and integrated circuit chip cards (hereafter referred to as "smart cards") for an off-line solution.  State agencies have expressed an interest in each of these different approaches.  It is the intent of this appendix to remain technology neutral, pointing out where on-line or off-line processes may differ, but recommending neither approach.

In an on-line solution for EBT, the participant's WIC participant data prescription account balance is maintained on the EBT Processor's host system.

The EBT Processor is any entity that maintains EBT accounts and processes EBT transactions.  The EBT Processor may be either a public or a private entity.  In order to conduct WIC benefit transactions, the retailer must access the WIC household account database residing at the EBT Processor's host system to complete the transaction.  Within this technical solution, message flows take place between the in-store Electronic Payment System (EPS) and the EBT Processor.

In an off-line solution for EBT, the household's WIC prescription account balance is maintained on the card, and the retailer stores the transactions until the end-of-day processing when batched transaction sets are sent to the EBT Processor.  In the off-line EBT solution, the WIC transaction message flows take place between the EPS, the card acceptor device (i.e., intelligent smart card reader), the integrated circuit chip on the card, and between the in-store EPS and the EBT Processor.

In an ESD environment, the card in an off-line system may be used to maintain demographic, health, referral, and appointment data that are shared across programs.  The off-line approach allows the exchange of data between disparate provider systems, as the first provider system can read data from another provider system, update data on the card, and the cardholder can transport the data to another location.  The second provider can read the data on the card entered by the first provider and update its system.

A distinction between the off-line and on-line transaction processing flows for EBT is that the on-line system can conduct immediate settlement of WIC purchases and screen for fraudulent use of "hot cards" as the data from settlements already exists at the EBT Processor host system.  The processing for participant-initiated WIC transactions may take place at the EBT Processor's host system or at the retail store processor. When done at the host, the status of the participant's card is validated against the EBT Processor's card database, and the database updated with the results of the participant's transaction.  A similar procedure is used for on-line ESD, where the participant's health record is maintained at the ESD Processor (instead of a benefit transaction file, as is the case in EBT).  Alternatively in an on-line environment, the WIC account balance

may be transferred to the in-store controller where it is decremented for WIC purchases and returned to the host at the conclusion of the completed WIC transaction.

When considering the implementation of WIC EBT, it is important to understand the unique features required for this type of system.  WIC benefits are a detailed prescription of specific foods in specific quantities.  An EBT system for WIC EBT needs to be able to capture the detailed transaction data and ensure that only the authorized items are being purchased.  While EBT for other programs, like Food Stamps, is analogous to a credit card transaction (where only the total dollar amount of the purchase and the identity of the benefit beneficiary are part of the transaction), WIC EBT requires a much more detailed transaction.  While Food Stamp EBT can be accommodated through the same infrastructure used for credit card transactions, there is no nationwide infrastructure that currently processes the detailed level of data required for WIC EBT.  However, pilot projects are in development to test both on-line and off-line WIC EBT.

This appendix is divided into two separate sections.  The first section, WIC EBT/ESD Functions, addresses the functions that are performed at the local clinic or the EBT Processor.  It also includes functions that the retailer performs and the data that are routed to the EBT Processor.  This functionality is likely to be within the scope of a State agency's WIC EBT/ESD RFP.  This section is primarily focused at State agency managers and readers who wish a general overview of ESD and EBT system functions.

The second section, WIC EBT In-store Processing, provides a technical description of EBT in-store processing (i.e., the benefit redemption and settlement function.   This section is intended to inform WIC retailers of WIC EBT data processing requirements for the Point-of-Sale (POS) device and retailer's EPS.  Depending on the approach and scale of the EBT/ESD implementation, the in-store processing may not be included within the scope of a State's EBT/ESD RFP.  It is included in this appendix to introduce that functionality to both the State agency and the retailer community.

The appendix will cover both EBT and ESD, as appropriate.  FNS understands that some State agencies may wish to implement both, while other State agencies may be interested only in EBT or in ESD.  Where processes are unique to either EBT or ESD, they are described separately.  When processes are similar for both EBT and ESD, it is noted.  A high-level description is provided below for each main function along with a reference to the FRED-E function that further describes the processes and inputs.  In addition, each function is concluded with a brief description of State agency IS changes that are likely with the implementation of ESD/EBT.

## C.1   WIC EBT/ESD FUNCTIONS

The EBT/ESD functions include:

- Establish EBT/ESD Account

- Authorize Benefits

- Issue and Manage EBT/ESD Cards

- Maintain Accounts

- Process Transactions (function shared with retailer EPS)

- Provide Training Materials and Services

- Maintain and Manage Food Benefit Data

- Manage Retailer/Provider Authorization and Oversight

- Conduct Transaction Settlement (function shared with retailer EPS)

- Conduct Management Reporting.

### C.1.1   ESTABLISH EBT/ESD ACCOUNT

In most EBT/ESD systems, an EBT Processor maintains the WIC household account so that as services are delivered or food benefits are redeemed, this activity is recorded in the household account.  Thus, once certification is

complete for a participant, the State agency IS system transmits an extract of the participant data file to the EBT Processor for setup of the EBT/ESD account for the WIC household. In an ESD environment, the data extract would include relevant demographic and health/nutritional information about each participant in the household. The EBT Processor creates a unique household account identifier. The EBT Processor provides the State agency IS with daily electronic reports of accounts established and account setup exceptions.

This process is the same for both ESD and EBT systems and for on-line and off-line solutions:

- The State agency IS compiles and transmits the necessary participant data to the EBT Processor

- The EBT Processor receives and processes account set-up data in either on-line or batch mode, using ACH file formats

The EBT Processor creates an account for each WIC household on its server

- The EBT Processor provides a daily electronic report of accounts established to the State agency IS including account set-up exceptions, rejected setup requests and reason for rejection.

FRED-E Reference: See Certification – Establish EBT/ESD Account

State Agency IS Changes: All functions remain the same, but an additional processing step is added to upload the participant data extract to the EBT Processor.

### C.1.2 AUTHORIZE BENEFITS

Once certification is complete, each participant is prescribed a food package. The local agency obtains the proper food packages for the participant's nutritional condition from a list of possible food packages maintained by the State agency IS. The local agency records the food package selection in the participant's record. In some existing EBT systems, the IS consolidates the foods for all participants in the household. This method imposes certain assumptions and inherent inaccuracies, but is often used since it is difficult to know which client is actually the purchaser/consumer of the specific foods purchased. The technical and logical resolution issues are the same whether the benefits are

consolidated or kept separate by the participant.  The Benefits Authorization file composed of the consolidated food prescription is transmitted to the EBT Processor to update the WIC household account and benefits are now authorized.

It is important to note that the EBT Processor maintains data on the total list of food items any member of the household could purchase (e.g. 20 gallons of milk).  When the participant makes her WIC purchase at the retailer, the foods she purchases are deducted from the household food item account list maintained by the EBT Processor.

The EBT Processor processes and posts the authorized food benefit quantities (by food category and subcategory) and the dates the participant must use the benefits to the EBT account.  On a daily basis, prior to the processing of claims, the EBT Processor processes the batch or on-line transmission of authorized food benefits to new accounts and for updates to existing accounts.  The participant has access to benefits at local WIC clinics.  FNS expectation is that all EBT system solutions will allow for immediate access to benefits upon certification. Consequently, the EBT Processor must process benefit authorizations issued by WIC clinics daily.  This process is similar in both on-line and off-line solutions.

The EBT Processor:

- Receives and processes food benefit authorization records

- Posts authorized benefit quantities to appropriate EBT household accounts

- Provides a daily electronic report of benefit authorizations processed to the State agency IS

- Notifies the State agency of benefit authorization exceptions.

FRED-E Reference:  See Certification – Establish EBT/ESD Account

State Agency IS Changes:  For EBT systems, each participant's food prescription is grouped for the household.  The State agency must modify its IS to perform this consolidation.  In addition, since the EBT Processor now maintains

household records, the State agency IS must transmit any authorized changes to the data retained in the EBT Processor's household account.

### C.1.3 ISSUE AND MANAGE EBT/ESD CARDS

For ESD and EBT, the system should personalize the card, and prompt the participant to select her personal identification number (PIN) via a PIN pad, which utilizes data encryption and other security measures, as appropriate. For ESD only, the card is loaded with selected ESD data, and issued to the participant at the time of certification. The local agency then issues paper food instruments to the participant. For EBT systems, the card is also personalized (including selection of a personal identification number to control account access) and issued (provided to the client) at certification. Food benefits may be authorized through the host (central EBT server) and later downloaded electronically at selected WIC retailers. Alternatively, a State agency may find it more efficient to personalize, issue, and load the card all at once at the point of benefit issuance.

For EBT, the specific workflow may vary from clinic to clinic, but the issuance of EBT benefits is often treated similarly to the issuance of food instruments. The food benefits issued on each card are usually valid for a one-month period using start and end dates for each consolidated food prescription. The local agency will determine the number of months (from one to 3 months) based on the participant situation and agency policy. The State agency IS system assigns the first valid date and last valid date based on the date of issuance. For EBT/ESD systems, a card reader/writer device at the clinic writes the participant and food prescription data to the card. Since most cards are issued to participants as combined WIC member households, this device writes information onto the card, it also adjusts balances existing on the card. The participant is also provided with a hard copy of the household's food prescription list so she has a reference for shopping and can obtain an updated list at the clinic or store (since the original printed list becomes outdated as soon as the participant makes the WIC first purchase). Because the EBT environment allows participants to purchase any amount (up to authorized amount) of benefits at each shopping trip during the benefit month, keeping an updated food prescription list is important for tracking benefits.

In both the on-line and off-line environments, the EBT/ESD Processor usually distributes EBT/ESD cards to designated local agencies within each State agency.  Electronic cards have a Primary Account Number (PAN), which the system captures from the card.  Each local agency maintains a secure inventory of all card stock.

Once the card is issued, managing the card is part of the EBT/ESD Processor's role.  The EBT/ESD Processor (which may be a contractor or the State itself) manages the customer service function to which lost/stolen/damaged cards are reported.  The EBT/ESD Processor maintains the "Hot Card List" that records the cards that are lost/stolen.  The updated Hot Card List is sent daily to the individual retailers (with EBT), providers (with ESD), or both (with EBT/ESD cards) to prevent the fraudulent use of lost/stolen cards.  It is the State agency's responsibility to determine card replacement policy.  For example, the State agency may decide to replace the card, but not the benefits or charge a fee after one replacement.

In summary, the card issuance and management functions are similar for both EBT and ESD.  The difference is primarily the types of data placed on the card. The EBT/ESD Processor performs the following functions as part of card management:

- Distributes EBT/ESD cards to designated locations

- Supports card personalization and issuance at WIC local agencies

- If EBT benefits are not already stored in the card memory, electronically downloads each month's benefits to selected retailers for issuance to the card through retailer point-of-sale (POS) terminals

- Deactivates lost/stolen/damaged cards

- Supports the Personal Identification Number (PIN) selection and change processes

- Manages the Hot Card List

- Maintains Participant Card Loss History

FRED-E Reference:  Food Benefit Issuance—Issue Electronic Benefit Card

State Agency IS Changes:  From a local agency perspective, card issuance is similar in process to paper food instrument issuance.  Both "food instruments" record participant data, list the foods the participant can purchase, and are accountable items that the local agency must track.  The primary difference is that a paper food instrument requires a printer and the card requires a reader/writer to provide the "food instrument" to the participant (a printer is also required to print a participant's shopping list).  In addition, the card requires the participant to select a PIN.  Because one card can be issued for an entire family/ household, local agencies will no longer have to produce multiple food instrument for each member of the family/ household group, thus saving money and clinic staff time.

For cards, the management of lost/stolen cards becomes the EBT Processor's responsibility.  When a participant loses a paper food instrument, it is usually not replaced as it is considered the equivalent of "cash".  In EBT, the local agency can replace the card and if a fraudulent attempt is made to use the lost card, the "hot card" list screening will prevent the transaction.

### C.1.4   MAINTAIN HOUSEHOLD ACCOUNTS

The primary purpose of household account maintenance is to ensure that accurate and timely information is maintained regarding participant account balances, account status, and participant demographic information.  These processes are similar in both EBT and ESD environments.  The key difference is that in the EBT arena, food prescription balances are maintained by the EBT Processor at the host only (for on-line) and at the host and card (for off-line).  In the ESD environment, health, nutrition, appointment, referral, and immunization data are maintained and shared across providers.  ESD data can also be maintained by the host only in on-line and by the card and host for off-line.

In the on-line EBT environment, the EBT Processor tracks the benefit redemption process.  The EBT Processor maintains account information, provides transaction histories, provides the participant with account balance information, and decrements the prescription as a result of authorized WIC

purchases at the retailer.  In the on-line environment, this process may be conducted through some combination of the host and the in-store controller/EPS. In off-line EBT, the prescription on the card is debited at the retailer, and the household account is debited at the host as a result of the end-of-day transaction processing.

The Household Account Maintenance function is performed in both the EBT and ESD environments.  The EBT account maintenance functions may include food account adjustments.  For ESD, the functions only include updating the account data and closing an account.

The EBT/ESD Processor performs the following functions as part of account maintenance:

- Maintain WIC EBT/ESD Account Information

- Maintain account transaction history

- Upon inquiry, provide food prescription balance and last date to spend

- Post debits to the WIC household account as result of authorized WIC purchases.

FRED-E Reference:  Food Benefit Redemption, Settlement and Reconciliation— Maintain Food Transaction Data

State Agency IS Changes:  Depending upon how the State agency's paper food instrument system is designed, this function could require minor to major changes.  In an EBT system, the system maintains a price for each food authorized for WIC.  When food benefits are authorized, the estimated cost for the list of food prescribed is calculated by the State agency IS.  Thus, an obligation is created for the household account.  As the participant purchases her food, the estimated value is replaced with the actual value of the prescribed foods.  In essence, a "one-to-one reconciliation" of food issued to food redeemed is automatically done for each purchase.  And, unlike most paper food instrument systems, food obligations and expenditures are current at all times.  The EBT Processor will provide this data on a daily basis to the State agency.  In paper

food instrument systems, the bank or State processing unit usually does reconciliation on a monthly basis. Therefore, the State agency can only estimate expenditures until monthly reconciliation is done.

### C.1.5 PROCESS TRANSACTIONS

The Process Transactions function is split between the EBT/ESD Processor and the "in-store" (for EBT) or "at provider" (for ESD). In EBT, the purchase/redemption transactions are initially generated at the POS terminal in the retailer. The WIC purchase transaction is initially edited at the POS for the card hotlist and food items that are WIC allowable, as well as for adequate remaining balance for the food item in the food prescription and hotlist status. In an off-line environment, the card is read at the POS to determine the remaining prescription balance and it is updated when the purchase is made. In an off-line system, the purchase transactions may be aggregated and sent at the end of the day to the EBT Processor for processing or sent a number of times throughout the day.

In an on-line environment, the retailer POS can download the prescription from the EBT Processor to the in-store system, and then conduct the transaction. The retailer can also transmit the transaction to the EBT Processor for authorization and process the food transaction against the household food account held by EBT Processor. In an on-line system, no end-of-day transmission may be needed because either the transaction is conducted at the EBT Processor or the decremented prescription is uploaded to the EBT Processor in real time. The section of the appendix on in-store processing describes the benefit redemption process in greater detail.

In an ESD-only environment, the transaction also is initiated at the local provider. The card reader reads the card and accepts updates to the participant's data just as it does in EBT. Again, the major difference between EBT and ESD is the type of data being read and updated. Parallel to EBT off-line processing, the data update transactions may be aggregated and sent to the ESD Processor (for central back-up) on a dial-up basis. Alternatively, the data updates may be maintained locally or may not be maintained at all. As in EBT, the card can

serve merely as an access and data transport device to achieve data sharing across providers.

The WIC EBT/ESD system receives and processes WIC transactions routed from the point of origination (retailer and/or provider) through a commercial switch or a dial up direct connection to the EBT/ESD Processor.  The EBT/ESD Processor then verifies that the transactions are from authorized retailers and/or providers and processes these transactions.  Transactions are either accepted or denied depending on whether they meet specified criteria, such as: the retailer and/or provider is authorized; the participant PIN is verified; there are sufficient benefits in the account; the food item is authorized; the price of the food is not over the maximum limit; et cetera.

The EBT/ESD Processor (whether the State or private) performs the following functions as part of transaction processing:

- Accept and process WIC transactions from authorized retailers/providers

- Process the transactions and provide the reason for error or denial of transaction

FRED-E Reference:  Food Benefit Redemption, Settlement and Reconciliation – Pay Vendor for Food Benefits Redeemed (EBT Systems)

State Agency IS Changes:  The process for redeeming the food benefits and the edit screens conducted for integrity purposes vary for EBT and paper food instrument systems.  In the paper environment food instrument reconciliation focuses on the financial transaction and is an "all or nothing" transaction, generally one reconciliation transaction per document.  In EBT, the reconciliation focuses on the individual food item.  EBT allows a large number of transactions against a particular issuance and, at the extreme, there can be one transaction per unit food package redeemed.

Other differences between paper and EBT include timing and automation—in EBT, most error screens are done automatically at the point of sale rather than manually performed by a cashier, bank, or State agency employee.  For the State agency, this function primarily eliminates the detailed food instrument error

screening and significantly streamlines tracking functions performed by State or contracted staff.  In EBT, the software resident on the card, in the retailer POS and EPS equipment, or at the EBT Processor executes the food transaction process and performs error screens.  Exception reports from this automated screening provide a ready audit trail of specific items of interest.

### C.1.6   PROVIDE TRAINING MATERIALS AND SERVICES

The EBT/ESD system developer should create training materials in accordance with the system configuration.  The EBT/ESD system developer should provide these training materials for training sessions held with State and Local agency/clinic employees, technical and support personnel, WIC retailer staff, and provider staff, depending on the type of implementation (i.e., EBT, ESD or both). The training for retailer personnel should include EBT transaction processing as experienced "in lane".  Finally, The EBT/ESD State agency or its contractor should develop EBT/ESD training materials (e.g., pamphlets, brochures, videos, card carriers, etc.) for WIC participants, service delivery personnel, and technical and support personnel.

The State or its contractors perform the following functions as part of the EBT/ESD training functionality:

- Provide printed training materials to State WIC/local agency/clinic staff

- Provide printed training materials to retailers

- Provide printed training materials to providers

- Provide printed training materials and video for WIC participants

- Conduct training as necessary.

FRED-E Reference:  This function is not a part of the IS, but is similar to what the State agency would do to implement an IS in its State agency.

State Agency IS Changes: None, this is merely an additional training task. Training modules that interface with the IS may be built into the EBT system.

### C.1.7   MAINTAIN AND MANAGE FOOD BENEFIT DATA

The WIC Program designates approved foods that are issued to participants.  To facilitate the prescription of foods to participants, standard combinations of foods, called food packages, are defined in Federal WIC regulations.  A number of food packages are structured for each WIC category (e.g., pregnant women, infants, children).  At the State level the various packages developed for each participant category vary in their food content to address different nutritional requirements as well as cost containment considerations.  In an EBT system, the food packages are consolidated for all WIC participants in a household, and a list of foods is provided in the household food benefit account.  When the participant shops, the quantity of foods purchased is debited from the household food benefit account.

To ensure that the participant purchases the proper food prescription at the retailer, the State agency should maintain a food UPC database.  FNS has developed the *WIC UPC and Food Category Tables for EBT System Design* that provides a nationally uniform list of foods, categories, and subcategories.  This document standardizes the categories of WIC foods so that all State systems refer to the same food type with the same codes.  As new foods are authorized by FNS, State agencies are notified of the new food's category and subcategory.  It is important to note that of the universe of all foods authorized for WIC, each State agency selects a subset that is best for their particular situation.

The UPC database includes the food item, category/subcategory (e.g. milk-whole), package/container size and the corresponding Universal Product Code (UPC) and maximum price for each UPC.  The State agency IS must maintain the UPC database.  The State's approval of UPC items is part of UPC database maintenance.  The State, EBT Processor and/or the retailer can maintain the UPC database based on changes transmitted by the State agency.  The database may, in fact, reside at the EBT host, with State access for updates, and automatic downloads to authorized retail locations when updates have been made.  The In-store Processing section provides greater detail on the UPC database design and processes.

The UPC database serves two crucial functions.  When a WIC purchase occurs, the scanning system automatically flags any foods that are not WIC-authorized, and will not include the non-WIC food items in the WIC purchase.

The food transaction provides the actual cost for each food by UPC.  The State agency IS may use this data to estimate future food costs, evaluate trends, etc. The vendor transaction file provides food cost data that is then stored in the State agency IS so that the State agency can estimate the average cost of particular foods (e.g., a 36 oz. box of cereal averages $4.50).  Usually retailer food costs are averaged based on the expected number of redemptions at each retailer or for each retailer peer group (e.g., supermarkets).  The system uses this information to estimate food expenditures based on the foods issued to all currently participating households.

The State agency may also wish to assign a maximum value.  The State agency could choose a maximum value based on the highest-priced retailer's food cost. Alternatively, the State agency could calculate an estimate of the value of the food instrument based on average historical redemption values and inflate this value by a certain percentage to allow for inflation and price variances among retailers.

A variation of the maximum price that some State agencies use is a "contract price" for each food.  In a contract food price system the retailer agrees to accept as full WIC payment a contract price for each food category (e.g. 36 oz. box of cereal is limited to $4.50).  If the food cost submitted is more than the contract amount, the retailer is automatically billed for the amount in excess of the contract price.  Alternatively, the State agency might also apply the contract price limit at the point of sale.  In this situation, the food purchase software in the store would only permit payment to the retailer of the contract price.

FRED-E Reference:  Food Benefit Issuance—Maintain Food Package Data

State Agency IS Changes:  This is a major system change for most State agencies.  While State agencies maintain some type of food cost data, for most, capture of individual food cost data from sources such as retailer price surveys is too expensive to conduct with any frequency.  With EBT, the capture of this data

is automatic and the State agency can store it for use in expenditure management and cost containment.

EBT does require that the State Agency design a UPC database, and design a program for compiling the food cost data to determine the price limits it wishes to impose on retailers.  The State agency can also use this data to produce itemized bills for infant formula and other food rebates.  The database could be part of the IS or could be a separate database from which data is extracted as needed.

### C.1.8    MANAGE RETAILER/PROVIDER AUTHORIZATION AND OVERSIGHT

The EBT system should support the management of participation by authorized retailers (in EBT), providers (in ESD), or both (EBT and ESD).  Since WIC already does vendor management, it is likely that these changes will be incorporated into the State's vendor management role.

In an EBT system, the food cost data maintained from WIC transactions can assist the State agency in selecting retailers for WIC authorization.  One of the primary factors in whether to authorize a retailer is the retailer's food prices.  EBT food cost data provides explicit food cost data on which to compare retailer costs and conduct vendor peer group analysis.

In the EBT environment, the State agency IS system is slightly expanded to include additional retailer data and to provide a data file of the authorized retailers to the EBT Processor.  The State or its EBT Processor uses these data to provide customer service related to settlement (payments) to authorized retailers.  It also maintains data on POS terminals deployed on behalf of the State agency.

The State agency and retailer must reach agreement on whether the State agency will provide the POS terminals and handle installment and maintenance responsibilities or whether the retailer will be responsible for terminals.  Generally, this decision is complex and is negotiated on a case-by-case basis.

Similarly, in an ESD-only environment, the ESD Processor maintains a database of authorized providers to verify transactions.

The ESD Processor would deploy and maintain terminals at WIC clinics and providers.

Both the EBT and ESD Processor provide physical and access security of the retailer/provider management data, maintain data that are unique to each retailer and provider, and ensure the privacy of confidential data. States should meet industry standards in system security.

The State or its EBT/ESD Processor should perform the following functions as part of retailer/provider authorization and oversight:

- Retrieve or input retailer price data to determine which retailers offer the lowest prices on WIC foods

- Collect and maintain retailer/provider IDs and POS Terminal ID's

- Add/delete retailers and providers and provide a mechanism to reinstate disqualified retailers/providers

- Deploy and maintain POS and card reader/writer equipment, if not separately contracted.

FRED-E Reference: Food Benefit Issuance—Maintain Food Package Data and Vendor Management—Maintain Vendor Authorizations

State Agency IS Changes: Use of food cost data for retailer selection is currently performed by most State agencies. However, some State agency IS modification is likely to incorporate the greater amount of data provided by EBT. Further, State agencies are able to conduct a more comprehensive review of retailer prices, which might result in additional IS design modifications.

If the State agency decides to purchase, deploy and maintain clinic reader/writer terminals and retailer POS terminals, this is a responsibility for which it would seek EBT/ESD contracted assistance. As a result, some additional data elements and processes may be added to the State agency IS or interfaced with the IS.

### C.1.9 PROVIDE CUSTOMER SERVICE

The State or EBT/ESD customer service provides authorized retailer, provider, and system user support through a customer service center; the customer service

center may be centralized or there may be separate centers for different types of users. Authorized retailers would contact the EBT/ESD customer service to receive support for problems with the in-store system and to receive information on the status of food cost reimbursement and ACH activities. Retailers, providers of other components of the EBT/ESD system, and/or local agency staff may need to call customer service when there is an equipment malfunction, system problem, or on-site customer problem.

For participants, the EBT/ESD customer service should setup a help desk to provide not only traditional system help, but also provide assistance for stolen/lost/damaged cards, incorrect account balances, or transaction processing questions.

The EBT/ESD customer service performs the following functions:

- Provides WIC *participant* a toll free number to report card loss, make inquiries, and receive customer service assistance through both an Automated Response Unit and Customer Service Representatives

- Provides *retailer* assistance through a toll free number, using both an Automated Response Unit and Customer Service Representatives

- Provides EBT/ESD system component *providers* assistance through a toll free number, using both an Automated Response Unit and Customer Service Representatives

- Maintains and operates an EBT/ESD Help Desk.

FRED-E Reference: Operations Management—Monitor Customer Service for Participants, Vendors and Providers

State Agency IS Changes: Most State agencies currently maintain a customer service or help desk for participants, local agencies and retailers. EBT/ESD would require either the expansion of these functions, or the State agency could contract for EBT/ESD customer service support.

### C.1.10 CONDUCT TRANSACTION SETTLEMENT

For EBT systems, the State or its EBT Processor compiles all food purchase information transmitted from the WIC retailers at the end of the day or any time

within 48 hours of the previous settlement initiation.  This food redemption information is validated for authenticity and appropriateness in accordance with State and national WIC policy prior to initiating ACH transactions to reimburse authorized retailers for the cost of purchased foods.  The EBT Processor should initiate draw down on the respective State agency's letter of credit.  Once ACH payment reimbursement is initiated, the EBT Processor transmits all redemption data to the State agency IS systems.

While far more limited in nature than EBT food settlement, ESD may include some end-of-day processing or capability to dial up a central data store.  This processing provides a mechanism to back-up card data in case the card is lost/stolen.  It could also potentially provide a database that supports generation of aggregated, longitudinal health statistical reports across multiple programs and providers.  Some implementations of ESD may prefer to back-up the card data through data systems of health providers, so not all ESD systems have end-of-day settlement processing.

The State or EBT/ESD Processor performs the following functions as part of transaction settlement and reconciliation:

- Collect and validate food redemption data (EBT only)

- Initiate ACH transactions to reimburse retailers (EBT only)

- Transmit redemption data to State agency WIC information systems (EBT only)

- Receive participant end-of-day processing file and update host database and/or card replacement/backup system (EBT/ESD).

FRED-E Reference:  Food Benefit Redemption, Settlement, and Reconciliation-Pay Vendor for Food Benefits Redeemed (EBT Systems)

State Agency IS Changes:  This function is relatively unchanged for most State agency systems. It is very similar to current voucher and bank processing activities as the EBT Processor replaces the bank or State voucher processing responsibilities.  The State agency IS must accept an expanded data set from the

food redemption data as a result of EBT. It also should alter its methods for accumulating food obligation and expenditure data to enable use of the data on a daily basis for expenditure tracking. For ESD, States will need to make decisions about practices for interfacing with the ESD card, including when and from whom updates will be accepted for the IS data elements.

### C.1.11 CONDUCT MANAGEMENT REPORTING

The EBT/ESD system will produce numerous reports. The State or its EBT/ESD Processor will provide System Performance Reports for use by the State agency as well as data files to the State agency IS for State management purposes. It should be noted that this section merely suggests the types of reports the State agency might produce from the data furnished by the EBT/ESD Processor. The State agency may wish to do more or less of the report processing depending on its own internal IS capacity.

The general report types may include the following:

### C.1.11.1  Program Management Reports

The State agency IS produces the following reports that depend on data collected from the EBT/ESD system:

- Participant Specific and General Management Reports

- Nutrition Education Reports

- Food Item Prescription and Redemption Reports

- Cost Containment (Rebate) Reports

- Expenditure Management Reports

- Vendor (Retailer) Management Reports on Food Item Availability and Vendor Pricing

### C.1.11.1.1 Participant Specific and General Caseload Management Reports

- **Food Cost Control**. One of the most powerful capabilities of the EBT system is the ability to use food item transaction data to determine the price of food by type and brand. This data enables the State agency to set food cost limits that are enforced either at the point of sale, or as

collections after the point of sale. The State agency IS can use this information for forecasting food cost trends and estimating the change in program expenditures and caseload under different food package scenarios.

- **Referrals To and From Other Providers**. According to State design, the ESD system might track the referrals that are made from WIC to other providers and from other providers to WIC. This includes any programs that participate with the WIC Program on the ESD card. The State agency IS could produce reports on a daily basis of how many participants and what programs are involved in referrals as well as the outcome of those referrals.

- **Transfers**. The system can potentially report the number of transfers that are made within and outside the State agency depending on the level of integration achieved with other State systems.

### C.1.11.1.2 Nutrition Education Reports

- **Nutrition Education Classes Attended**. If the participant's card is read each time the participant takes a nutrition education class, the system can record the date, location, class content or counseling event that the participant receives and produce reports (the ability to record class attendance to the card is pertinent in a chip card environment). In an integrated ESD environment, education sessions conducted by other food and nutrition programs would be available for use by nutritionists in evaluating a participant's nutrition situation.

- **Planning WIC Food Packages and Nutrition Education Strategies Based On Foods Purchased**. Since the EBT system captures the UPC of the foods purchased by the participant, it is possible for the State agency IS to report the actual foods purchased by the household. These purchase patterns could augment the nutrition counseling provided to participants.

- **Immunization Data Transfer**. One of the primary programs with which the WIC Program is likely to exchange data is the Immunization Program. The ESD system can store immunization data on the card and update the Immunization Program database, or capture data from the card regarding the participant for WIC intake. In an on-line system, the card can access Immunization Program records.

### C.1.11.1.3 Food Item Prescription and Redemption Reports

- **Household Level Reports**. The EBT system could generate reports showing the amount of a food item that was prescribed and the amount that was redeemed at the household level.

- **Clinic Level**.  The EBT system could generate reports showing the amount of a food item that was prescribed and the amount that was redeemed at the clinic level.

### C.1.11.1.4 Cost Containment (Rebate) Reports

- **Rebates**.  The EBT system provides food transaction data by UPC that identifies the brand of product and quantity sold to WIC.  Based on the transaction data, the State IS can multiply each manufacturer's number of units by the rebate for that product to determine the rebate amount billed.  This report is crucial for infant formula rebate billing, and the same process is possible for other food items that receive rebates.

- **WIC Market Share.**  The State agency IS can also calculate the total WIC purchases of specific brands of food to determine the WIC market share for that food item or a group of food items produced by a particular manufacturer.  This information could support rebate contracts on food items where WIC purchases a significant amount of product.

- **Participant Food Preference Analysis**.  The EBT system provides food purchase data by UPC that the State agency IS can sort to determine which foods are consistently selected by participants, and which are less popular.  For instance, the State agency IS can calculate the frequency of purchase by brand of cereal.  This is especially helpful in comparing the popularity of store brand versus national brand food products such as cereals and juices.  This information can assist the State agency is making changes to authorized foods for cost containment purposes.

- **Participant Nutritional Needs.**  The State agency IS can also assess food purchases in relation to participant nutritional needs.  For instance, the State agency's IS can calculate the amount of non-contract formula issued including costly special formulas for infants with health conditions that require special formula.

### C.1.11.1.5 Expenditure Management Reports

- **Daily Expenditure Status**.  In an EBT system, the daily receipt of food transaction data enables the State agency IS to produce daily expenditure projections based on current food cost data.  This substantially improves the State agency's ability to manage expenditures and greatly improves the quality and timeliness of expenditure reporting to FNS.  For FNS, the receipt of more timely food expenditures facilitates faster reallocation of funds and issuance of grants to State agencies.

- **Expected Food Costs**.  The food purchase data provides food cost information that the State agency IS uses to update food costs in its food database.  Thus, each time benefits are authorized for a household, the State agency IS can calculate the expected value of the foods based on up-to-date food prices.

- **Actual Food Costs**.  The household food benefit account is updated each time a transaction occurs.  This allows timely assessment of WIC financial flows.  The State agency system uses this data to update the expected redemption amount for the household account.

### C.1.11.1.6 Vendor (Retailer) Management Reports

- **Vendor Selection**.  The EBT system supports the input and analysis of food price data.  The State agency IS can use this data to assess the food prices of applicant vendors that are currently on WIC.  For vendors who have not been on WIC, it is possible to request that vendors send UPC price information along with their application so the State agency can load this data in the system.  The State agency IS can produce reports that sort vendors by location and rank them by price by specific food items, food item categories, or for a food package that is used to evaluate the prices of all vendors.

- **Vendor High-Risk Detection**.  In an EBT environment, the opportunity to overcharge the program and commit other violations is greatly reduced.  However, there are ways that fraud could occur in an EBT system.  These reports can help identify potential high risk behavior.

- **EBT/ESD System Performance Reports**  The State or its ESD/EBT Processor should provide the following reports to assist the State agency in monitoring the operations and performance of the EBT system, customer service operations, and the Automated Response Unit.  The reports include:

- Card Activity Report

- Transaction Activity Reports

- System Availability Reports

- Response Time Analysis Reports

- Utilization Reports

- Retailer Database Change Reports

- Customer Service Report

> ### C.1.11.1.6.   Card Activity Report
> The card management reports should pertain not only to
>
> EBT, but also to ESD systems.  The system should report

daily the number of cards issued by local clinics and providers.  The State agency or a provider can access detail of card issuance activity via the administrative terminal as a query or as an ad hoc reporting request.  Card activity data would show the total number of cards issued as new accounts and replacements.

### C.1.11.1.6.  *Transaction Activity Reports*

Daily reports on the number of transactions approved, denied, or failed and the reasons for denial or failure by retailer and/or provider account, outlet, and POS terminal ID.

Daily reports on payments made through the ACH including ACH payments initiated, ACH payments processed, ACH payments not processed and reason for return, and ACH payments pending bank routing or other information correction/update.

Daily settlement reports showing any WIC retailers or WIC clinics that did not settle correctly, and, for clinics, what benefits, identified by PAN, are impacted.  Also, daily reports on out-of-balance conditions between any cards and the host.

The EBT system should provide a daily audit trail that documents the full cycle of issuance from household account set up, to posting to POS transactions at the retailer, through settlement of retailer credits.  This daily audit trail will include, but not be limited to, the following:

- o   Verify participant's PIN at POS
- o   Reconcile food benefits issued to each household's food item account against the food items authorized on the WIC system

- o Reconcile benefits available at the beginning of a processing day against those redeemed/settled and remaining in WIC accounts
- o Reconcile food benefit purchase prices against payment amounts deposited daily for each retailer in their financial institutions
- o Reconcile retailers' credits against cash withdrawals from the State agency bank
- o Reconcile that funds authorized and paid equal funds received for the system overall
- o Account for all dollars entering, exiting, and expected to be spent in the system.

### C.1.11.1.6.   System Availability Reports

Monthly system trouble reports on the date, time, and location of any system failure at the retailer, provider, or clinic.  Also, monthly downtime reports for the EBT Processor host.

### C.1.11.1.6.   Response Time Analysis Reports

Monthly reports listing the response time for loading cards in the clinic or at the EBT/ESD provider and for the conduct of a food purchase at the retailer.

### C.1.11.1.6.   Utilization Reports

Daily settlement reports for retailers and/or their designated third party processor.   The settlement report should reflect the EBT end-of-day total WIC purchases, as defined by the EBT system design.  The EBT system may also generate a total retailer terminal ID so that the retailer can view the transaction totals by terminal ID since the previous settlement report.

### C.1.11.1.6.   Retailer Database Change Reports

Daily updates of authorized retailers added or deleted from the authorized retailer list, terminals added or deleted and reason for change in status.

### C.1.11.1.6.   Customer Service Reports

Monthly system trouble reports on the date, time, location of any system problem encountered by the retailer, provider, or clinic and the outcome of the problem.

### C.1.11.1.6.  Fraud Reports

The EBT system can provide ad hoc access to data as necessary to conduct compliance investigations and prepare compliance and investigative reports. The EBT system should assist the State in identifying and evaluating trends of non-compliance by cardholders, retailers, providers, and administrative (staff) system users.

## C.2  IN-STORE EBT PROCESSING

The intent of this section is to provide a more detailed analysis of the processing that occurs during WIC food benefit redemption at the retailer's physical location.  While this processing is clearly outside the scope of the State agency IS, the in-store processing provides critical data to the State agency IS concerning food transactions.  The specific processing performed depends upon the implementation approach.  To remain technology neutral, this section provides information on both the on-line and off-line EBT implementations.

In order to conduct WIC EBT food transactions, the retailer must have a scanner and an EPS of some type.  For large retailers, this equipment is usually available. Smaller retailers may not have scanners or a sophisticated EPS.  It is possible for the State agency to operate EBT differently depending on the electronic infrastructure of the retailer.  For instance, the EBT Processor could use a combination of smart card, magnetic stripe, on-line and off-line methods as best suited to particular retailers.

The basic equipment needed by a retailer includes:

**Scanning System**. Ideally, when the food purchase takes place, the retailer system should have a scanner, which is integrated with the retailer's EPS.  If the retailer does not have a scanning system, it is possible to install a "stand-beside"

system where WIC food items are scanned and the price entered and then the data is stored for later transaction payment and settlement.

**EPS.**  The retailer needs a computer to store the UPC database so that WIC food item purchases are screened and to capture the transaction data.  A computer is also needed to execute the transmission of the vendor transaction detail file for ACH payment and to the EBT Processor.  For smaller retailers, it is possible for the retailer to "dial up" the EBT Processor and as WIC purchases are made, for the EBT Processor's system to validate the food purchase against the UPC database.  However, this may result in a prohibitive communication expense.

**Point-of-Sale Terminals**.  The terminal must process multiple item transactions and route food item data back and forth with the retailer EPS, card, and, in an on-line system, the EBT Processor.  Terminals that read smart cards usually have the memory capacity to perform the necessary processing functions, as do some higher end on-line terminals.  However, there are some on-line terminals that are unable to handle a transaction as complicated as the WIC food purchase.  Again, for these retailers, an on-line connection with the EBT Processor may be a solution.

The following functions are included within the in-store electronic benefits redemption process and are based on a retailer with integrated scanning and EPS equipment.  For retailers without this equipment, the State agency and retailer would need to adapt the processes to the retailer's available equipment.  In store processing functions include:

- Perform Balance Inquiry

- Perform WIC Food Delivery

- Perform Business Day Cut-Over

- Maintain Hot Card List

- Process WIC Food Adjustments

- Maintain UPC Table

### C.2.1   PERFORM BALANCE INQUIRY

The balance inquiry process can be performed either on-line or off-line.  The following sections describe the processing and data flows inherent to both approaches.
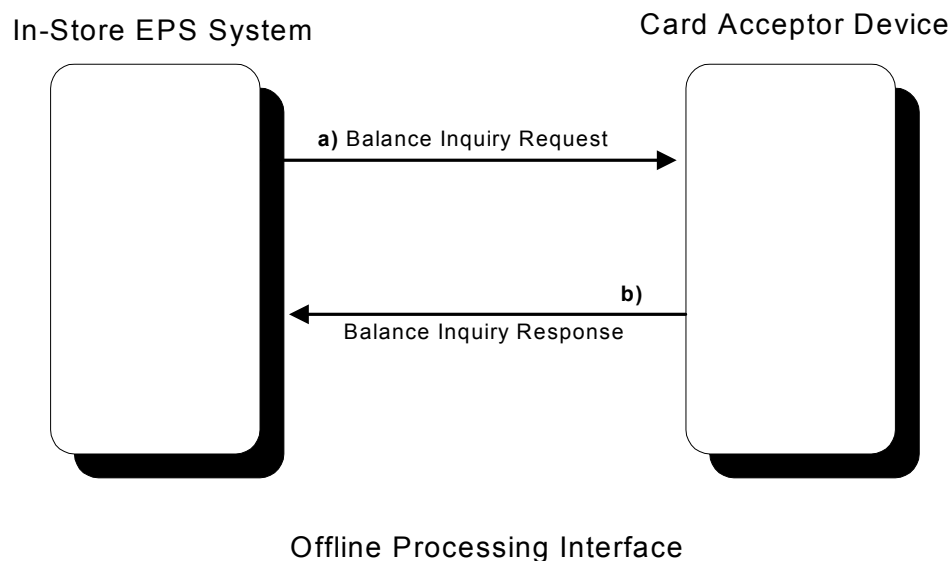
### C.2.1.1   Perform Balance Inquiry (Off-Line)

The off-line balance inquiry is performed to obtain the WIC prescription available on the smart card.  Prior to performing the balance inquiry, the validity of the card and the entered PIN is verified.  Once the card is validated, the prescription balance remaining on the card is retrieved and displayed to the cardholder.  At the same time, notices, such as appointment reminders, pending for the participant are also displayed.  This process can be performed either at a separate customer service terminal or "in-lane" at the discretion of the individual store.

The WIC Prescription Balance Inquiry Message Flow Diagram below shows the flow of messages between the In-Store Electronic Payment System (EPS) and Card Acceptor Device in the off-line environment.  The processing described in the following sections defines what occurs within the "boxes" of the diagrams to create and receive the message transactions.
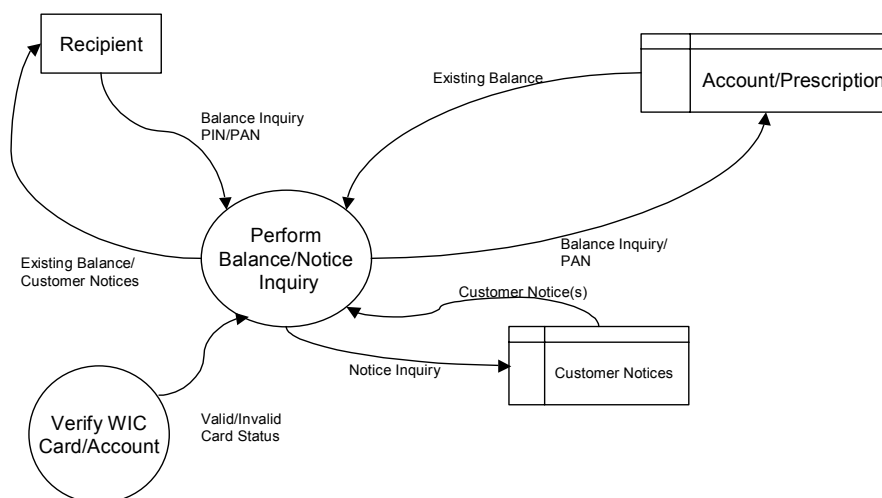
## WIC Prescription Balance Inquiry

In-Store EPS System

Card Acceptor Device

**a)** Balance Inquiry Request

**b)**
Balance Inquiry Response

Offline Processing Interface

The Data Flow Diagram below illustrates the flow of data for this process,

## Data Flow:  Customer Service
## Perform Balance/Notice Inquiry

Recipient

Existing Balance

Account/Prescription

Balance Inquiry
PIN/PAN

Existing Balance/
Customer Notices

Perform
Balance/Notice
Inquiry

Balance Inquiry/
PAN

Customer Notice(s)

Notice Inquiry

Customer Notices

Verify WIC
Card/Account

Valid/Invalid
Card Status

whether it is performed on-line or off-line.

Within the Card Acceptor Device, the WIC Card/Account is verified.  The Card Acceptor Device receives the Prescription Balance Inquiry Request transaction, prompts for card insertion, and performs the Card to Terminal Handshake (Perform Set/Reset).  Once this is completed, the device prompts for the PIN entry, accepts the entered PIN, and validates the PIN entry against the PIN in the card memory.  If the PIN is valid, the device checks for the WIC benefit access lock.  If no WIC benefit access lock exists on the card, the device continues processing.  However, if there is a lock, the device returns the "WIC account access denied" message.  Following this check, the device checks to see if the card is on the Hot Card List.  Following the Hot List processing, in some EBT systems, the device queries the EPS for staged transactions (transactions that are not recorded on the card, such as manual transactions[1]) by comparing the PAN to record identifiers in the Unposted Adjustments File.  If no staged transactions are found in the Unposted Adjustments File, the device proceeds to retrieving the WIC Prescription Balance.  Otherwise, the card acceptance device signals the user that there is a staged transaction to post to the card before additional processing proceeds.   The system retrieves the PAN from card, compares the PAN with the Unposted Adjustment File and retrieves the Unposted Adjustment Records.  The card is updated with these pending records.

Next, the device retrieves the WIC Prescription Balance, as well as Customer Notices from Customer Notices File.  The device creates the Prescription Balance Inquiry Response transaction to transmit the prescription balance to the EPS. The EPS system then receives the Prescription Balance Inquiry Response transaction and displays the Prescription Balance.  Alternatively the system may print a receipt with the Prescription Balance and Customer Notices.
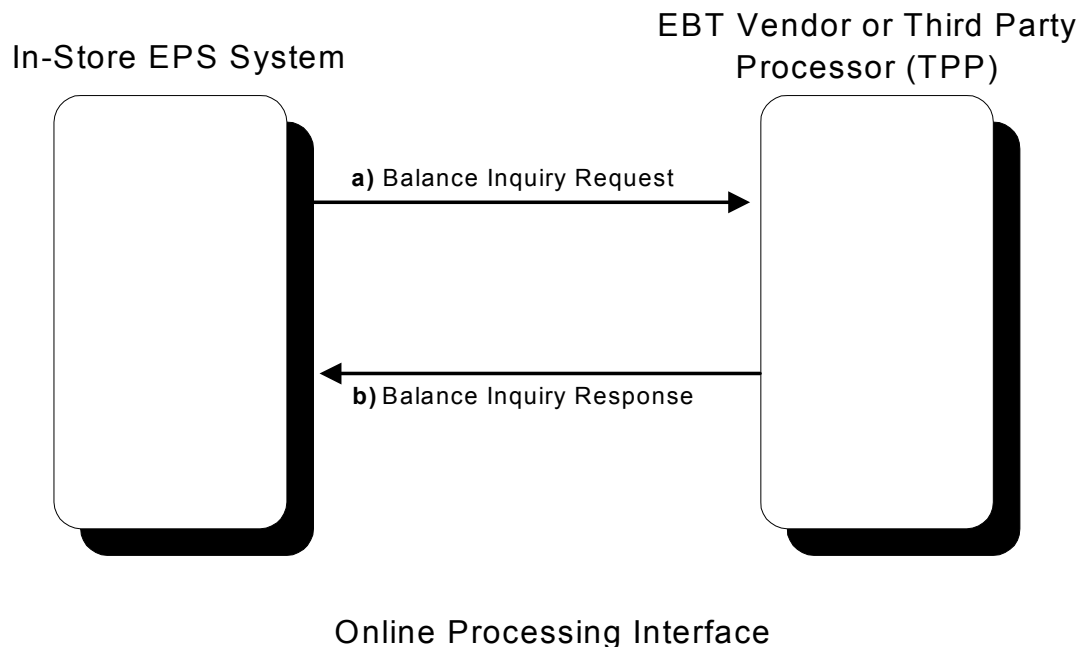
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[1] State agencies are encouraged to develop a process for manual transactions in the case of an emergency, however, retailers conduct manual transactions at their own risk.

### C.2.1.2    Perform Balance Inquiry (On-Line)

This process is performed to generate an inquiry of the WIC prescription balance residing at the EBT Processor Host.  In an on-line transaction, the processing for all participant-initiated WIC transactions takes place at the EBT Processor's Host system, where the status of the participant's card is validated against the EBT Processor's card database.  Prior to performing the balance inquiry at the host, the validity of the card and the entered PIN are verified against the card database.  Once the card is validated, the prescription balance remaining is retrieved from the EBT Processor's Host system.  The Host system generates a Balance Inquiry Response that provides the prescription balance to the EPS, which in turn displays the balance to the cardholder.  As with the off-line process, this on-line process can be performed either at a separate customer service terminal or "in-lane" at the discretion of the individual store.

The WIC Prescription Balance Inquiry Message Flow Diagram below shows the flow of messages between the In-Store EPS System and the EBT Processor Host in the on-line environment.  The processing described below defines what occurs within the "boxes" of the diagram to create and receive the balance inquiry

## WIC Prescription Balance Inquiry

In-Store EPS System

EBT Vendor or Third Party Processor (TPP)

**a)** Balance Inquiry Request

**b)** Balance Inquiry Response

Online Processing Interface

message transactions in the on-line environment.

The data flow for the on-line environment is similar to that for the off-line environment and therefore is not repeated. The following processes are performed within the EPS and EBT Processor systems.

The EPS system verifies the WIC Card/Account by:

- Prompting for Card Insertion

- Prompting for PIN entry

- Accepting the entered PIN

- Generating the Balance Inquiry Request message.

The EBT Processor performs the following functions:

- Receive Balance Inquiry Request message

- Validate the card against the Hot Card List

- Validate the PIN entry against PIN in Host file

- Retrieve the WIC Prescription Balance from Account/Prescription File on the Host

- Retrieve the Customer Notices from the Customer Notices File (Optional)

- Create WIC Balance Inquiry Response transaction to send back to the EPS system.

In response to the processing performed in EBT Processor System, the EPS system performs the following functions:

- Receive Prescription Balance Inquiry Response transaction

- Display the Prescription Balance/Customer Notices and/or print a receipt with the Prescription Balance and/or the Customer Notices.

### C.2.2    PERFORM WIC FOOD DELIVERY

The WIC Food Delivery process can be performed either on-line or off-line.  The following sections describe the processing and data flows inherent to both approaches.  The following process description is meant to be generic, but may vary somewhat depending upon the implementation strategy for a particular system.

### C.2.2.1    Perform WIC Food Delivery (Off-Line)

This off-line process is used to perform a transaction purchase against the benefits available on the WIC prescription resident on the smart card.  The resulting transaction is either a successful transaction or a denial because of a "hot list" status of the card, an incorrect PIN, or failure of the card to terminal handshake.  If it is a successful transaction, a deduction is made to the food prescription balance and a settlement transaction is made from the retailer to the EBT Processor.  Retailers may perform settlement at the end of the day or at other times, depending on State-established protocol.  In the case of a Hot Card, the Card Acceptor Device will update the card (i.e., lock the access to WIC benefits on the card against further uses), and require the participant to take some action to clear the card.

The WIC Prescription Purchase Message Flow Diagram below shows the flow of messages between the In-Store EPS System and Card Acceptor Device in the off-line environment.  The processing delineated below defines what occurs within the "boxes" of the diagrams to create and receive the message transactions.

## WIC Prescription Purchase
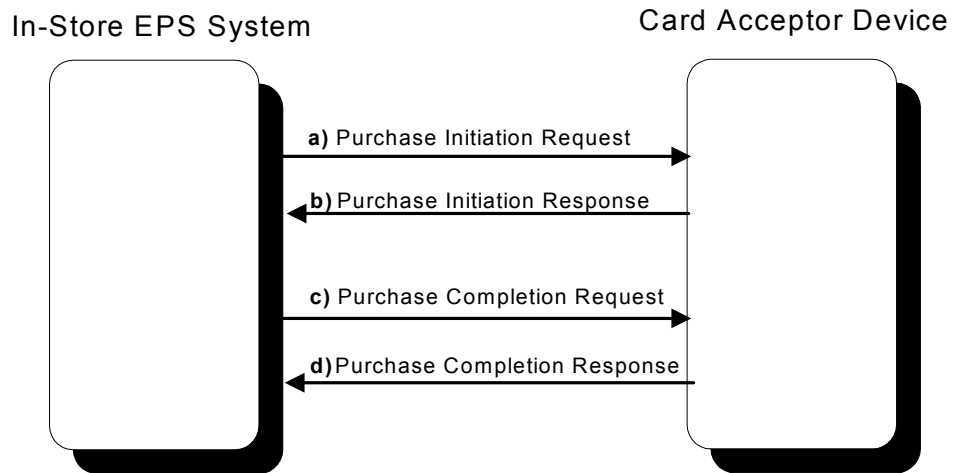


The Data Flow Diagrams below show the flow of data for the various sub-processes that comprise the WIC Food Delivery process.  These Data Flow Diagrams depict the processing and flow of data that occur within both the EPS and the Card Acceptor Device.
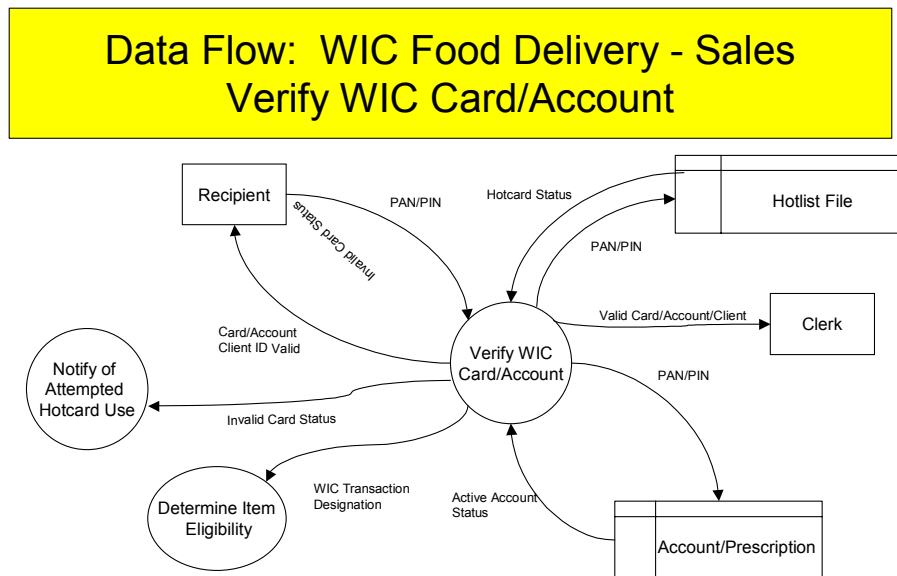
The first process performed in the Card Acceptor Device is to verify the WIC Card/Account.  In this process, the Card Acceptor Device performs the following functions:

- Receive the Purchase Initiation Request

- Prompt for insertion of the card Perform the Card to Terminal Handshake (Perform Set/Reset)

- Prompt for the user to enter a PIN

- Accept the entered PIN

- Validate the PIN entry against the PIN resident in the card memory

- Retrieve the prescription from card

- Generate a Purchase Initiation Response that contains the prescription to send to the EPS.

The EPS receives the transaction and performs the following processing:

- Receive Purchase Initiation Response

- Validate the card against the Hot Card File and lock the card if the card is found on the Hot Card File

- Query the card for staged transactions and perform the staged transactions processing if a waiting transactions is found.
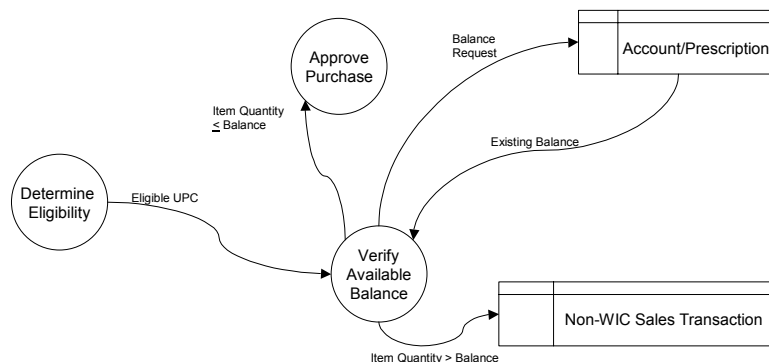
**Data Flow:  WIC Food Delivery - Sales
Determine WIC Item Eligibility**
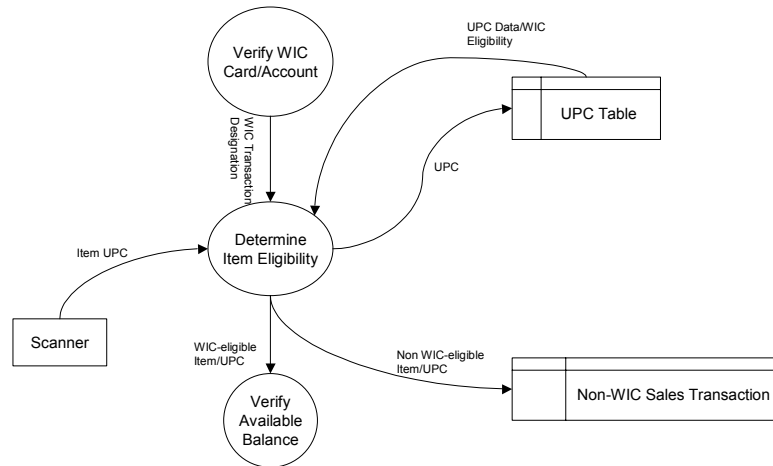


The EPS then determines item eligibility for each food item scanned by performing the following functions:

- Receive the Food Item UPC from scanner

- Validate the UPC against WIC eligible food items in the UPC table.

**Data Flow:  WIC Food Delivery - Sales
Verify Available Balance**



Next the EPS verifies the available balance by:

- Validating that the WIC item is in the Food Prescription

- Converting the item amount to a standard unit of measure for the item's category/subcategory

- Validating the WIC Eligible UPC against the WIC Prescription to determine the existing balance.

<div style="background-color:yellow">

# Data Flow:  WIC Food Delivery - Sales Approve Purchase

</div>
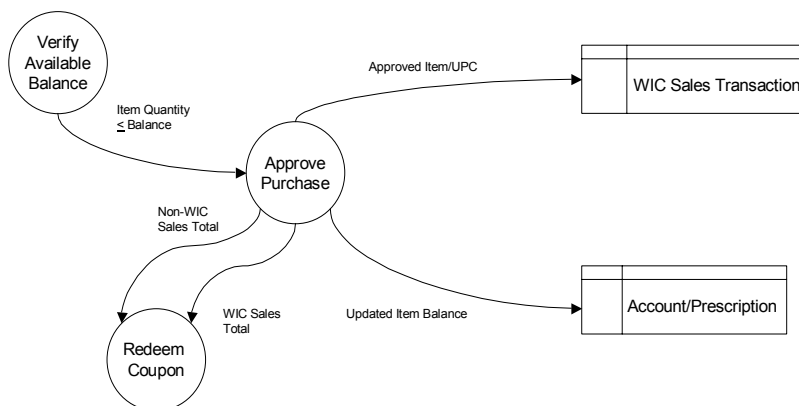


The EPS then approves the purchase by:

- Deducting the food item amount from the food category/subcategory prescription balance in the Account/Prescription Buffer

- Updating the WIC Sales Transaction Buffer

- Printing the WIC Sales Item Detail on the sales receipt

- Calculating the Total WIC and Non- WIC Sales

This process is performed for each WIC food item purchased.  When the last food item is completed, the EPS calculates the total WIC and non-WIC sales. The system design should enable the use of manufacturer coupons for WIC purchases.  If the participant has coupons to redeem, the EPS performs the coupon redemption process described below.



Data Flow:  WIC Food Delivery - Sales Redeem Coupon
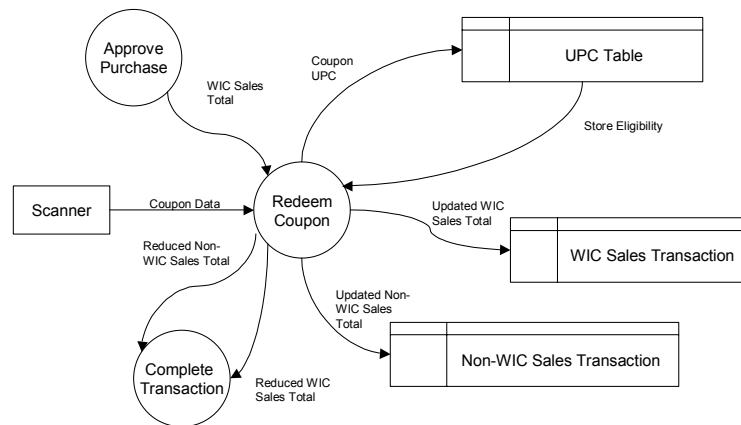
For each coupon being redeemed, the EPS performs the following functions:

- Accept the coupon scan

- Process the scanned coupon by checking the coupon UPC with UPC table to determine store eligibility and, if eligible, adding the coupon amount to the coupon credit buffer.

When all the coupons are processed the EPS subtotals the coupon credit buffer, deducts the coupon credit buffer amount from WIC Sales Total, and completes the transaction.



Data Flow:  WIC Food Delivery - Sales Complete Transaction
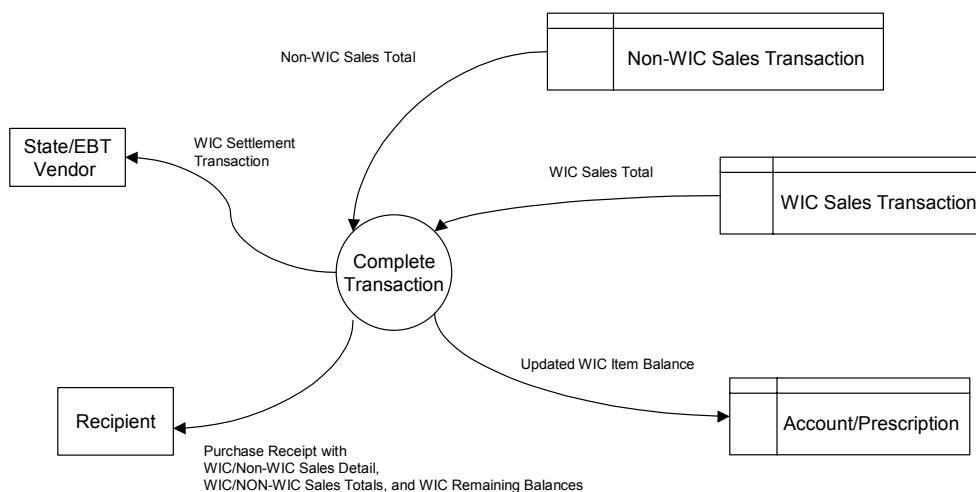
The EPS completes the transaction by:

- Retrieving the WIC Sales Total from WIC Sales Transaction Buffer

- Retrieving the Non-WIC Sales Total from Non-WIC Sales Transaction Buffer

- Printing the WIC and Non-WIC Sales Totals and Remaining WIC Balances on Cash Register Receipt from WIC Sales and Non-WIC Sales Transaction buffers

- Creating a Purchase Completion Request transaction

- Transmitting the Purchase Completion Request to the Card Acceptor Device.

The Card Acceptor Device updates the card by:

- Receiving the Purchase Completion Request

- Updating the Card Prescription Balances on the card

- Generating the Purchase Completion Response message

- Transmitting the Purchase Completion Response message to the EPS System.

At the State agency's discretion, real time settlement processing can be performed in an off-line environment.  As part of the in-lane processing of a WIC Purchase, a transaction can be generated to settle the WIC purchase immediately through real time, on-line processing.   Real time settlement is done at the time of WIC Purchase through the generation of a transaction that includes the transaction total amount and sales detail that is transmitted to the EBT Processor (see below in the section on WIC Settlement).

Alternatively, the settlement data can be transmitted to a store controller where it is stored until end-of-day aggregation takes place.  The end-of-day settlement process is described in greater detail in the section on Settlement of WIC Purchases.
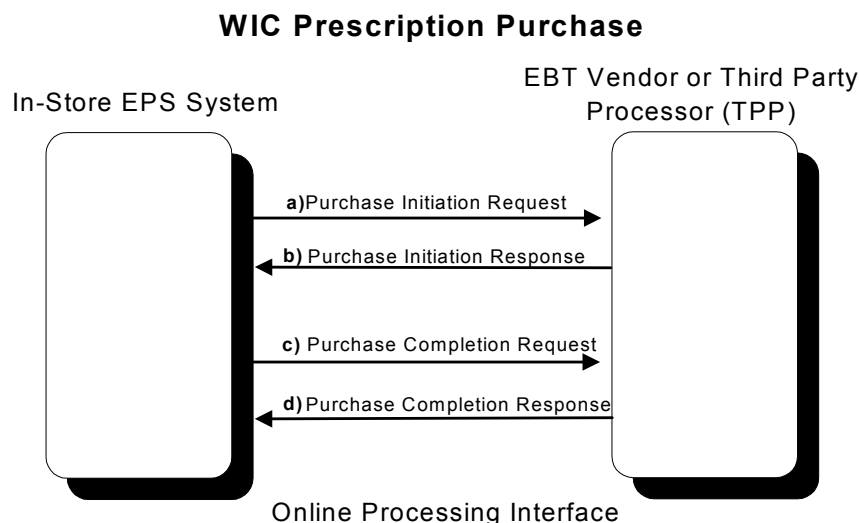
### C.2.2.2  WIC Food Delivery (On-Line)

This on-line process is used to perform a transaction purchase against the household food benefit account resident at the EBT Processor's host system.  It is initiated by the EPS sending a Purchase Initiation Request for the card PAN and PIN to the EBT Processor Host.  In an on-line transaction, the processing may take place at the EBT Processor's host system.  The status of the participant's card is validated against the EBT Processor's card database.  The WIC Purchase transaction begins by verifying the validity of the card and the entered PIN against the card database.  If the card has been reported lost or stolen, the card database will return a message that the card is not valid, which will end the transaction.  Once the card is validated, the prescription balance remaining is retrieved from the EBT Processor's Host system, and is downloaded to the

retailer EPS through the Purchase Initiation Response message.  If the card is invalid, this Purchase Initiation Response contains a denial message.  The EPS system scans an item, checks for WIC eligibility against the store's EPS UPC database, checks for adequate remaining balance, approves the purchase, and updates the "buffer" tracking the items purchased.  When all items are scanned, a total is calculated.  Any relevant manufacturer or store coupons are deducted from the total.

At the completion of the WIC Purchase Transaction, the Purchase Completion Request message containing the WIC sales item detail and the total settlement amount is transmitted to the EBT Processor via the normal EFT switch.  No separate settlement transaction is needed because the data required at the EBT Processor Host system for settlement of an on-line transaction is delivered at the conclusion of the WIC Prescription Purchase Flow.  At the EBT Processor, the cardholder's WIC prescription on the host is updated (a food prescription data file is transmitted to the host) and the total purchase amount is maintained for commercial settlement processing.  The transaction settlement file and the food prescription data file are matched at the EBT host to maintain a complete record.

The WIC Prescription Purchase Message Flow Diagram below shows the flow of messages between the In-Store EPS System and the EBT Processor host in the on-line environment.  The processing described below defines what occurs within the "boxes" of the diagram to create and receive the WIC prescription purchase message transactions in the on-line environment.

## WIC Prescription Purchase



In-Store EPS System

EBT Vendor or Third Party Processor (TPP)

a)Purchase Initiation Request

b) Purchase Initiation Response

c) Purchase Completion Request

d) Purchase Completion Response

Online Processing Interface

The data flow for the on-line environment is similar to that for the off-line environment and therefore is not repeated.  The following processes are performed within the EPS and EBT Processor systems:

The EPS verifies the WIC Card/Account by:

- Prompting for card insertion

- Prompting for PIN entry

- Accepting the entered PIN

- Generating the Purchase Initiation Request message.

Once the Purchase Initiation Request message is received by the EBT Processor, it performs the following functions:

- Validate the PIN entry against the PIN in the Host File and generate an error code in the Purchase Initiation Response message if the PIN is invalid

- Validate the card against Hot Card File in host and generate an error code in the Purchase Initiation Response message if the card is on the Hot Card File and update the attempted "Hot Card" card usage status in Hot Card File

- Validate that the PAN is associated with a valid WIC Account

- Retrieve the WIC prescription from host

- Generate the Purchase Initiation Response

- Transmit the Purchase Initiation Response to the EPS System.

The EPS system then determines the item eligibility for each item scanned by:

- Receiving the Item UPC from the scanner

- Sending the UPC to the UPC table

- Validating the UPC against WIC eligible items in UPC table and updating the Non-WIC Sales Transaction buffer when items are not eligible.

The EPS also verifies the available balance by:

- Validating that the WIC item is in the Food Prescription

- Converting the item amount to a standard unit of measure for the item's category/subcategory

- Validating the WIC Eligible UPC against the WIC Prescription to determine the existing balance

- Retrieving the category/subcategory remaining balance from the prescription

- Comparing the food item amount to the remaining balance for food category/subcategory in the prescription.   If the remaining balance is not sufficient, the Non-WIC Sales Transaction buffer is updated with the item amount and returns the message "Item Exceeds Remaining Prescription Balance".

The EPS approves the purchase by:

- Deducting the item amount from the food category/subcategory prescription balance

- Updating the WIC Sales Transaction Buffer

- Printing the WIC Sales Item Detail on the Sales Receipt

- Calculating the Total WIC and Non-WIC Sales.

When all items are scanned and processed, the EPS performs the Redeem

Coupon process by:

- Presenting the coupon message

- Accepting the coupon scan

- Processing the scanned coupon and if it is eligible, adding the coupon amount to the coupon credit buffer. If it is not eligible, the coupon amount is rejected and the next coupon is processed

- At the end of the coupons, if it is a WIC only sale, it subtotals the coupon credit buffer, deducts the coupon credit buffer amount from the WIC Sales Total, and completes the transaction. If it is a combined sale, it subtotals the coupon credit buffer, deducts the coupon credit buffer amount from Non-WIC Sales Total, and completes the transaction.

The EPS completes the transaction processing by:

- Retrieving the WIC Sales Total from the WIC Sales Transaction Buffer

- Retrieving the Non-WIC Sales Total from the Non-WIC Sales Transaction Buffer

- Printing the WIC and the Non-WIC Sales Totals and Remaining WIC Balances on Cash Register Receipt from WIC Sales and Non-WIC Sales Transaction buffers

- Creating a Purchase Completion Request transaction with the total purchase amount

- Transmitting the Purchase Completion Request to EBT Processor.

When the EBT Processor receives the Purchase Completion Request, it updates the WIC Prescription by:

- Receiving the Purchase Completion Request

- Updating the WIC household food benefit account balances in the appropriate host file.

The EBT Processor in turn settles the WIC Purchase by:

- Generating the Purchase Completion Response message

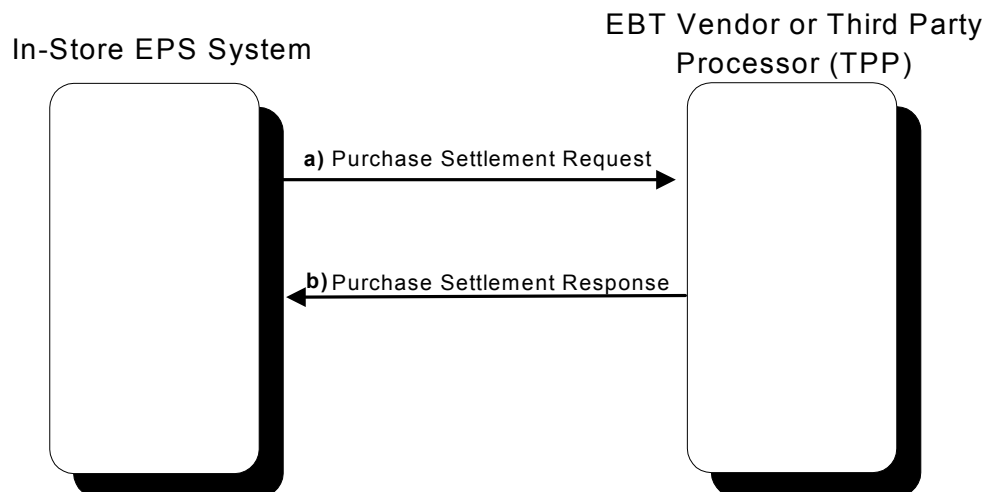- Transmitting the Purchase Completion Response message to the EPS System.

### C.2.3    WIC SETTLEMENT OF PURCHASE[2]

The WIC Settlement of Purchase transaction processing is performed only in the off-line environment.  This message flow is used to settle the WIC Purchase transaction (i.e., provide a record of the WIC purchase to the EBT Processor so that the process of moving funds for settlement to the retailers bank account is initiated).  The WIC Settlement of Purchase could be handled either by a real-time, on-line per transaction (in which case the WIC Settlement of Purchase transaction is created as part of the "check-out" process) or through a batch collection of transactions aggregated in the WIC Claim File that is uploaded at the end of the day, or at a regularly scheduled interval, after the "Business Day Cut-Over" process is performed.

The WIC Settlement of Purchase Message Flow Diagram, presented below, shows the flow of messages between the In-Store EPS System and EBT Processor to accommodate the real-time transmission of the settlement transaction.  The processing described in the following sections defines what occurs within the "boxes" of the diagrams to create and receive the message transactions.

## WIC Settlement of Purchase

In-Store EPS System

EBT Vendor or Third Party Processor (TPP)

**a)** Purchase Settlement Request

**b)** Purchase Settlement Response

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[2] The WIC settlement process should adhere to the ANS X9.93-2001 messaging format.

The EPS can perform real time settlement processing at the time of WIC Purchase by:

- Creating the Purchase Settlement Request transaction

- Transmitting the Purchase Settlement Request transaction to the EBT Processor.

The EBT Processor then performs the following functions:

- Receive the Purchase Settlement Request transaction

- Create the Purchase Settlement Response transaction

- Transmit the Purchase Settlement Response transaction to the EPS.

To complete the processing, the EPS:

- Receives the Purchase Settlement Response transaction.

Alternatively, the WIC Purchase can be transmitted to the store controller to be stored until it is retrieved to create the Settlement File during Business Cut-Over. Aggregated WIC sales are collected in a Settlement File and sent to the EBT Processor once at the end of the business day.

The EPS performs the following functions in its in-lane processing of settlement transactions:

- Retrieve the WIC Sales Transactions from the WIC Sales Transaction file

- Transmit the transaction to the controller to hold until it is used in the Business Cut-over Processing (see below).

### C.2.4 BUSINESS DAY CUT-OVER

The Data Flow Diagram below shows the processes and flow of data for the Business Day Cut-Over. The Business Day Cut-Over is the only component of the Settlement Process that is performed within the store. The other settlement functions--Commercial Settlement and State Settlement--are performed by the EBT Processor or the State agency. These latter functions are considered in the first part of the appendix and will not be repeated here. However, the in-store Business Day Cut-Over is described in detail in the following subsections.
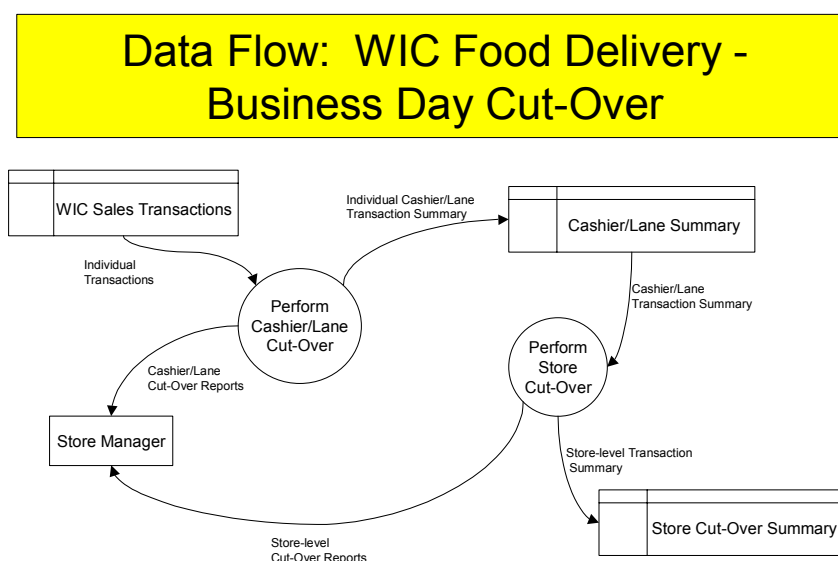


The "Business Day Cut-Over", which includes both cashier/lane- and store-level cut-over processes, is performed as follows

The EPS System/Controller performs the Cashier/Lane Cut-Over by:

- Accepting the Cashier/Lane Identifier

- Retrieving the WIC Sales Transactions for Cashier/Lane Identifier from the WIC Sales Transactions File

- Calculating the Cashier/Lane Total Amount

- Updating the Cashier/Lane Summary File with the Total Amount

- Generating the Cashier/Lane Cut-Over Reports.

The EPS System/Controller performs the Store Cut-Over by:

- Retrieving the Cashier/Lane Transaction Summary for all cashiers/lanes in store

- Calculating the Store Cut-Over Summary

- Updating the Store Cut-Over Summary File

- Generating the Store Cut-Over Reports.

The EPS system processes the WIC Settlement of Purchase Transaction by:

- Retrieving the WIC Sales Transactions from the WIC Sales Transaction File

- Retrieving the Store Level Cut-Over Summary

- Creating the Settlement File of collected transactions for upload to the EBT Processor

- Uploading the Settlement File to the EBT Processor.

### C.2.5   MAINTAIN HOT CARD LIST

While the creation and maintenance of the Hot Card List is not an in-store process (and it was detailed in the first section of the appendix) the role of the Hot Card List when initiating food purchase transactions is important to the "In-Store Processing" EBT discussion.  The Maintain Hot Card List process is performed within the EBT Processor in the on-line environment and within the retailer EPS in the off-line environment.

In the on-line environment, when the transaction is initiated, the EBT Processor checks the Hot Card List to determine if the card is listed.  In the off-line environment, the PAN numbers of "hot cards" are downloaded to the retailer's EPS, and card PAN is checked against the EPS hot card file.  In both on-line and

off-line, checking for hot cards is part of the "pre-authorization" process initiated by a Purchase Initiation Request transaction.

There are two aspects to the Hot Card List Maintenance: the establishment and update of the list including the receipt of the Hot Card Update Message by the retailer and the notification of the EBT Processor of the attempted use of a card included on the Hot Card List. Hot Card Lists can be handled in two ways: (1) real time updates of the WIC retailer's Hot Card File using the Hot Card Update Message flow or (2) through the EBT Processor preparing a complete replacement file at a regular interval and downloading the file to the WIC retailer.

The Hot Card Update Message Flow Diagram below shows the flow of messages between the EBT Processor and the In-Store EPS System.  The processing described in the following sections defines what occurs within the "boxes" of the diagrams to create and receive the message transactions.  The following discussion of the Hot List Process is meant to be generic.  The specific Hot List operations of some WIC EBT systems may vary somewhat from the process presented below.
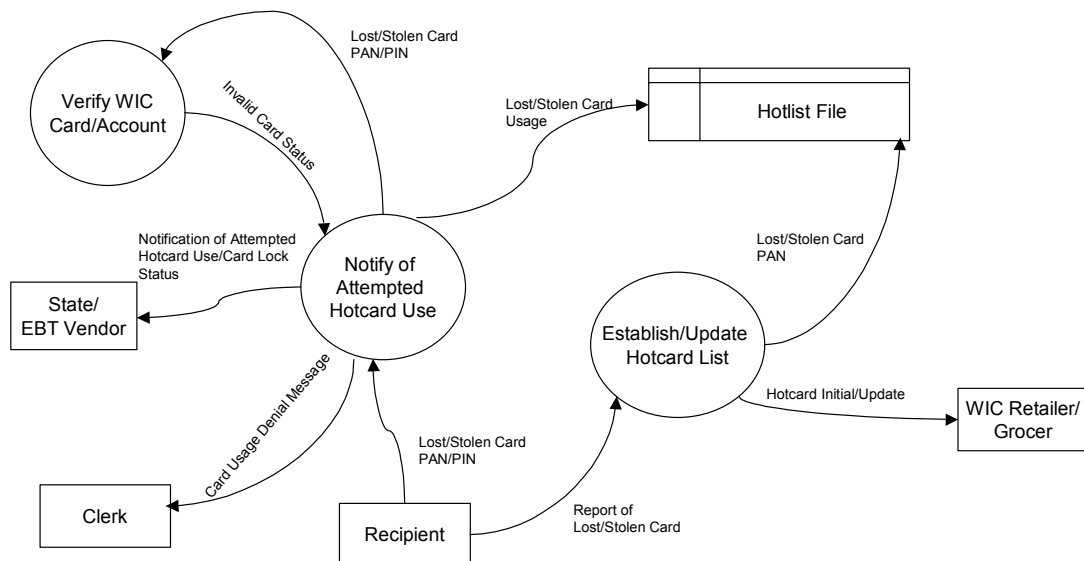
## Hotcard Update Message
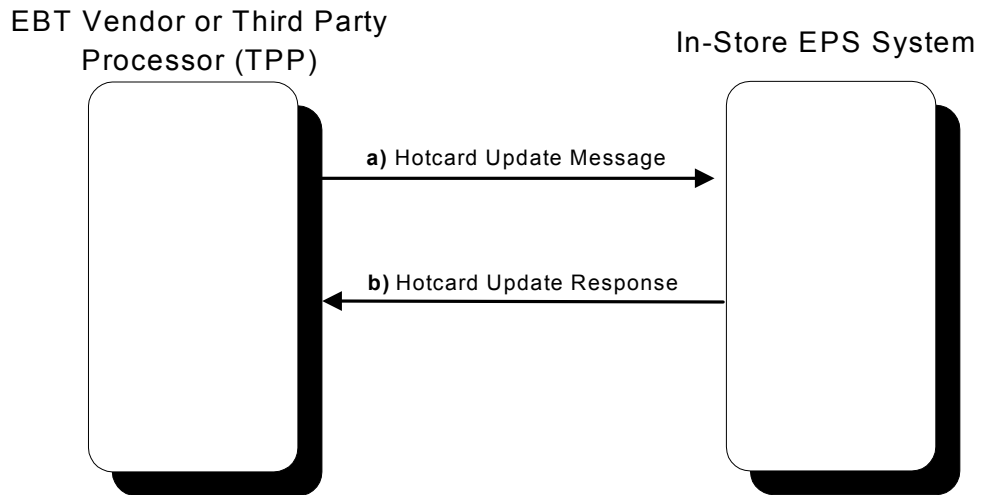


Offline Processing Interface

The Data Flow Diagrams below show the Maintain Hot Card List process.

### C.2.5.1    Establish/Update Hot Card List

Using the real time message approach, the EBT Processor performs the following functions to establish/update the Hot Card List:

- Generate Hot Card Update Message with lost/stolen card PAN/PIN

- Transmit the Hot Card Update Message.

The EPS then receives the Hot Card Update Message, updates the Hot Card File, and generates the Hot Card Update Response message.

Alternatively, the Replacement File approach can be used to establish/update the Hot Card List.  In this process the EBT Processor:

- Updates the Hot Card Replacement File with lost/stolen card PAN/PIN

- Downloads the Hot Card Replacement File to the EPS.

In turn, the EPS:

- Receives the Hot Card Replacement File

- Replaces the existing Hot Card File with the Hot Card Replacement File.

### C.2.5.2    Notify of Attempted Hot Card Use

During Verify WIC Card/Account (performed within the EPS at the initiation of a WIC transaction), if a lost/stolen card is identified, the following processing occurs:

- Lock WIC benefit access on card

- Display an invalid card message on the EPS terminal

- Create an error code in the Purchase Completion Request Message

- Transmit the Purchase Completion Request to the Card Acceptor Device

- Update the Hot Card File in the EPS with the attempted "hot card" card use code

- Generate the Hot Card Update Response message indicating that an attempted use of a lost/stolen card has occurred

- Transmit the Hot Card Update Response message to the EBT Processor

- Update Hot Card File on the EBT Processor with the attempted card use code

### C.2.6 STAGED TRANSACTION PROCESSING: PROCESS BENEFIT MODIFICATIONS[3]

Benefit modifications occur within the EBT Processor in the on-line environment, usually as the result of an administrative terminal transaction. The staged processing of WIC benefit modification transactions is needed only in the off-line environment and is dependent on the WIC State agency's policy on modifications to the food account at the store. These adjustments affect the amounts of the food prescription remaining in the EBT prescription account.

Generally, in an off-line environment, "staged transactions" are performed, separate from other processes, to accomplish these transactions. The following types of adjustments may be made to the prescription balance through "staged processing":

- **Credit Monthly/Supplemental WIC Benefits**. These transactions are to credit either the regular monthly WIC benefits or specially authorized supplemental benefits that may be needed by a participant such as when the participant can not come to the clinic to load food benefits on the card.

- **Debit Manual WIC Food Purchases.** If the system is down or the card is malfunctioning, the retailer may need to process manual WIC Food Purchases. The retailer can obtain permission to conduct manual purchases by telephoning the WIC EBT Customer Service Representative. The retailer must enter the WIC Sales Transaction Detail manually into the WIC EBT system for retailer settlement. WIC Sales Amount Totals are entered by the retailer and sent to the EBT Processor. However, the prescription balance on the card must be updated to reflect the deduction in balance that should have occurred for the manual purchase.

- **Credit/Debit Erroneous WIC Benefits.** If some unanticipated change must be made to the WIC prescription (e.g., need to change type of infant

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[3] Specific processes and policies related to staged transactions may vary from state to state.

formula), the prescription balance must be adjusted.  This adjustment may entail both a credit and a debit to the amount existing on the card.  This may be performed at the WIC clinic (and is consequently outside the scope of this section) or at a retailer, in a similar manner to the crediting of Monthly/Supplemental benefits (see above).

A regularly scheduled download of the Unposted Benefit Modification File (contains PANs of cards with waiting transactions) is made to the retailer's EPS.  When the card is read to perform a Balance Inquiry or to initiate a WIC Prescription Purchase, it is checked to determine if it has pending any Benefit Modifications. The card PAN is checked against the PANs contained in the Unposted Benefit Modification File.  If the card does have waiting benefit modifications, the cardholder must have these benefit modifications applied to the card prescription balances before further processing can occur.

There are many ways to conduct benefit modification, depending on the approach selected by the State agency.  In any environment, the system design should allow for benefit modification.  Examples of how this could be accomplished follow.  In an off-line environment, it is anticipated that the benefit modifications notifications could take place at either a separate customer service terminal or in the store lane (this is not necessary in an on-line environment, where benefits are at the host).  When the participant uses her card and a match is found for the card in the Unposted Benefit Modification File, a message is displayed and further processing is prohibited.  If the participant is at the in-store lane, she is directed to the customer service terminal.  The card could either go "on-line" to retrieve the waiting staged transactions from the EBT Processor or the EBT Processor could download the staged transactions to the EPS (if a participant is conducting a balance inquiry, staged transactions should be applied prior to printing the remaining balance in order to ensure accuracy).  A single staged transaction could accommodate multiple staged transaction types (e.g., monthly/supplemental WIC benefit credits, manual WIC food purchase debits, and erroneous WIC benefit credits and debits).

The WIC Benefit Modification Transaction Message Flow Diagram below shows the flow of messages between the In-Store EPS System and the Card Acceptor

Device.  A WIC Benefit Modification Transaction is initiated during the processing of either a Balance Inquiry or a WIC Prescription Purchase.

The in-store EPS system, after validating that the card is not on the Hot Card List, determines that there is an outstanding benefit modification (increment or decrement of prescription) to apply to the participant's card.  The appropriate message is formatted and an update request is sent to the Card Acceptor device. The Card Acceptor device, after updating the participant's smart card with the details of the benefit modification, sends a Benefit Modification Completion Response back to the in-store EPS system.  At this point, the participant's original transaction request (i.e., either the balance inquiry or the Purchase Initiation) is restarted by the in-store EPS system.

The processing described in the following sections defines what occurs within the "boxes" of the Message Flow Diagram to create and receive the message transactions.

## WIC Benefit Modification Transaction

In-Store EPS System          Card Acceptor Device

**a)** Balance Inquiry or Purchase
Initiation Request

**b)**
Balance Inquiry or
Purchase Initiation Response

**c)** Benefit Modification Request
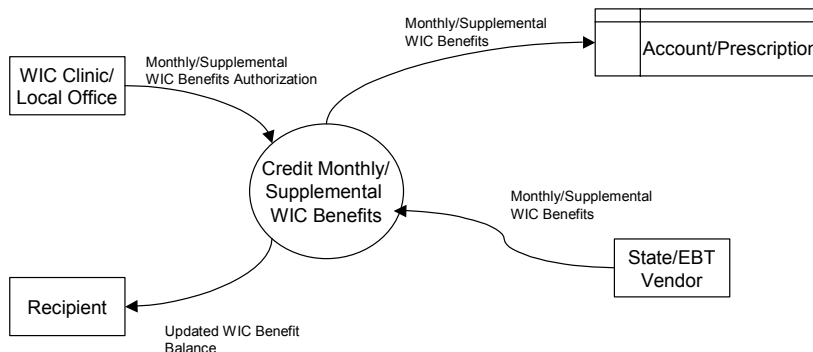
**d)**
Benefit Modification Response
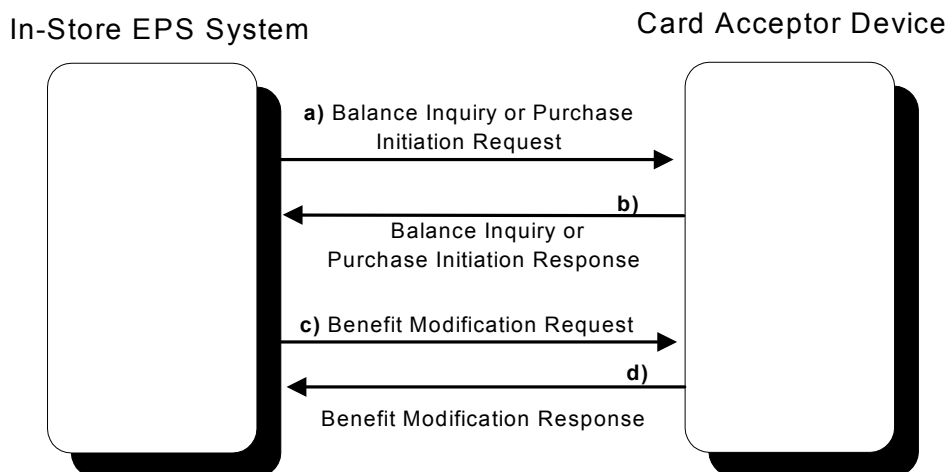
## Offline Processing Interface

### C.2.6.1  Credit Monthly/Supplemental WIC Benefits

The Data Flow Diagram below specifies the processes performed and data flow
for the "Staged Transactions" used to load regular monthly and supplemental
WIC benefits to the card within a retailer system.

## Data Flow:  State WIC Processing -
Credit Monthly/Supplemental WIC Benefits

Monthly/Supplemental
WIC Benefits                    Account/Prescription

WIC Clinic/      Monthly/Supplemental
Local Office     WIC Benefits Authorization

Credit Monthly/
Supplemental
WIC Benefits

Monthly/Supplemental
WIC Benefits

State/EBT
Vendor

Recipient

Updated WIC Benefit
Balance

### C.2.6.1.1   Off-line Benefit Modifications

The EBT Processor initiates the Benefit Modifications process by:

Receiving the Monthly/Supplemental WIC Benefit Authorization from the WIC Clinic

- Creating an Unposted Benefit Modification File

- Transmitting the Unposted Benefit Modification File to the in-store EPS, where it is received by the retailer in-store host.

The off-line approach for applying Monthly/Supplemental Benefits includes the following functions performed in the Card Accepter Device:

- Validate the WIC Card/Account by receiving the Balance Inquiry or Purchase Initiation Request from the EPS, prompting for Card Insertion, performing the Card to Terminal Handshake, and validating the PIN entry.

- Generate the Balance Inquiry or Purchase Initiation Response.

The EPS then performs the following functions:

- Receive the PAN in the Balance Inquiry or Purchase Initiation Response

- Validate the card against the Hot Card File and, if found, generate an Notify of Attempted Hot Card Use message

- Process Monthly/Supplemental Benefits by comparing the PAN with the Unposted Benefit Modification File and retrieving the Unposted Benefit Modification Records

- Generate the Benefit Modification Request.

In response to the Benefit Modification Request, the Card Acceptor Device performs the following functions:

- Receive the Benefit Modification Request

- Increment the card prescription balances with the Monthly/Supplemental WIC Benefits

- Generate the Benefit Modification Completion Response.

The EPS completes the process by receiving the Benefit Modification Completion Response and log and sending them to the EBT Processor for reporting purposes.

### C.2.6.1.2 On-Line Benefit Modifications

The on-line approach to apply Monthly/Supplemental Benefits is initiated at the EPS where the WIC Card/Account is verified by prompting for card insertion, prompting for PIN entry, validating the PIN, retrieving the PAN from the card, and generating the Balance Inquiry or Purchase Initiation Response.

To process Monthly/Supplemental Benefits, the EPS:

- Compares the PAN with the Unposted Benefit Modification File

- Sends message to the EBT Processor to retrieve the Unposted Benefit Modification Records from EBT Processor.

The EBT Processor then:

- Accepts the Benefit Modification Request from the EPS

- Retrieves the Unposted Benefit Modification Records and formats a response for the EPS

- Sends the Unposted Benefit Modification Record response back to the EPS.

The EPS then:

- Receives the Unposted Benefit Modification Record from the EBT Processor

- Generates the Benefit Modification Request that is sent to the Card Acceptor Device.

The Card Acceptor Device then:
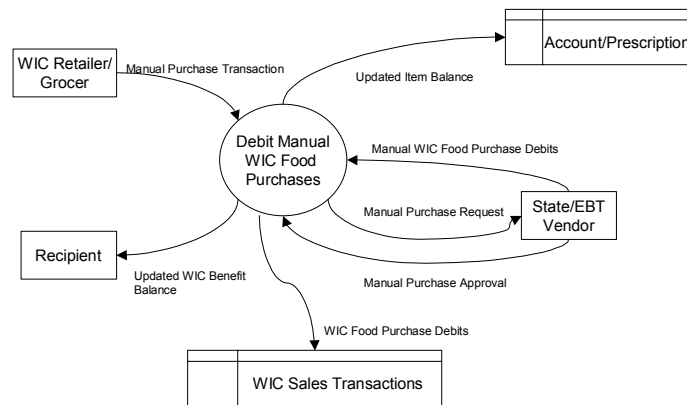
- Receives the Benefit Modification Request

- Increments the card prescription balances with Monthly/Supplemental WIC Benefits

- Generates the Benefit Modification Completion Response.

The EPS then receives the Benefit Modification Completion Response and log to send to EBT Processor for reporting purposes.

### C.2.7    DEBIT MANUAL WIC FOOD PURCHASES

The Data Flow Diagram below specifies the processes performed and data flow for the "Staged Transactions" performed to decrement the prescription balance with Manual WIC Food Purchase Adjustments.



**Data Flow:  State WIC Processing - Debit Manual WIC Food Purchases**

- The EBT Processor initiates the process for Unposted Benefit Modifications by:

- Creating the Unposted Benefit Modification File (add Manual WIC Food Purchase Debits)

- Transmitting the Unposted Benefit Modification File that is received at the retailer host.

### C.2.7.1.1   Off-line Application of Manual WIC Food Purchase Debits

The Card Acceptor Device validates the WIC Card/Account by:

- Receiving the Balance Inquiry or Purchase Initiation Request from the EPS

- Prompting for Card Insertion

- Performing Card to Terminal Handshake (Perform Set/Reset)

- Prompting for PIN entry

- Accepting entered PIN

- Validating PIN entry against PIN in card memory

- Retrieving the PAN from the card

- Generating the Balance Inquiry or Purchase Initiation Response.

The EPS then responds by:

- Receiving the PAN in the Balance Inquiry or Purchase Initiation Response

- Validating the card against the Hot Card File

- Retrieving the PAN from the Balance Inquiry/Purchase Initiation Response Message

- Comparing the PAN with the PANs in the Hot Card File and, if found, generating a Notify of Attempted Hot Card Use message.

The EPS also processes the Manual WIC Food Purchase Debits by:

- Comparing the PAN with the Unposted Benefit Modification File

- Retrieving the Unposted Benefit Modification Records

- Generating the Benefit Modification Request.

The Card Acceptor Device then continues the processing by:

- Receiving the Benefit Modification Request

- Decrementing the card prescription balances with Manual WIC Food Purchase Debits

- Generating the Benefit Modification Completion Response and log that is received by the EPS and sent to the EBT Processor for reporting purposes.

### C.2.7.1.2 On-line Application of Manual WIC Food Purchase Debits

The EPS verifies the WIC Card/Account by:

- Prompting for Card Insertion

- Prompting for the PIN entry

- Accepting the entered PIN

- Retrieving the PAN from the card

- Generating the Balance Inquiry or Purchase Initiation Response

- Receive PAN in Balance Inquiry or Purchase Initiation Response.

The EPS processes the Manual WIC Food Purchase Debits by:

- Comparing the PAN with the Unposted Benefit Modification File

- Sending a message to the EBT Processor to retrieve the Unposted Benefit Modification Records from EBT Processor.

The EBT Processor continues with the processing by:

- Accepting the Benefit Modification Record Request from EPS

- Updating the prescription with data from the Unposted Benefit Modification Record

- Decrementing the prescription balance on the host with Manual WIC Food Purchase Debits

- Retrieving the Unposted Benefit Modification Records and formatting responses for the EPS

- Sending the Unposted Benefit Modification Record response back to the EPS.

The EPS continues with the processing by:

- Receiving the Unposted Benefit Modification Record from EBT Processor

- Generating the Benefit Modification Edit Request.

The Card Acceptor Device then continues by:

- Receiving the Benefit Modification Request

- Decrementing the card prescription balances with Manual WIC Food Purchase Debits

- Generating the Benefit Modification Completion Response, which is then sent to the EPS, where it and the log is received and sent to the EBT Processor for reporting purposes.

### C.2.7.2    Credit/Debit Erroneous WIC Benefits

The Data Flow Diagram below specifies the processes performed and data flow for the "Staged Transactions" performed to increment and decrement the prescription balance with Erroneous WIC Benefit Adjustments.

Data Flow:  State WIC Processing -
Credit/Debit Erroneous WIC Benefits
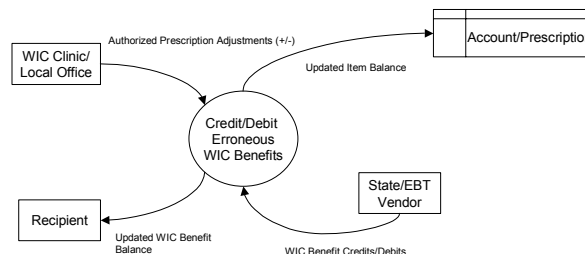
The EBT Processor initiates the processing of the Unposted Benefit Modifications by:

- Creating the Unposted Benefit Modification File (add Erroneous WIB Benefit Credits/Debits)

- Transmitting the Unposted Benefit Modification File, which is received in turn by the retailer host.

### C.2.7.2.1   Off-line Application of Erroneous WIB Benefit Credits and Debits

To Validate the WIC Card/Account, the Card Acceptor Device:

- Receives the Balance Inquiry or Purchase Initiation Request from the EPS

- Prompts for Card Insertion

- Performs Card to Terminal Handshake (Perform Set/Reset)

- Prompts for the PIN entry

- Accepts the entered PIN

- Validates PIN entry against PIN in card memory

- Retrieves the PAN from the card

- Generates the Balance Inquiry or Purchase Initiation Response, which in turn is received by the EPS.

The EPS then:

- Validates the card against the Hot Card File

- Retrieves the PAN from the Balance Inquiry/Purchase Initiation Response Message

- Compares the PAN with PANs in the Hot Card File, and, if found, generates the Notify of Attempted Hot Card Use message.

The EPS continues with processing the Manual WIC Food Purchase Debits by:

- Comparing the PAN with the Unposted Benefit Modification File

- Retrieving the Unposted Benefit Modification Records

- Generating the Benefit Modification Request.

The Card Acceptor Device continues by:

- Receiving the Benefit Modification Request

- Incrementing and decrementing the card prescription balances with Erroneous WIC Benefit Modifications

- Generating the Benefit Modification Completion Response, which is received with the log and sent by the EPS to the EBT Processor for reporting purposes.

### C.2.7.2.2  On-line Application of Erroneous WIC Benefit Credits/Debits

The EPS Verifies the WIC Card/Account by

- Prompting for Card Insertion

- Prompting for PIN entry

- Accepting the entered PIN

- Retrieving the PAN from the card

- Generating the Balance Inquiry or Purchase Initiation Response, which is then received by the EPS.

The EPS processes the Manual WIC Food Purchase Debits by:

- Comparing the PAN with the Unposted Adjustment File

- Sending a message to the EBT Processor to retrieve the Unposted Adjustment Records from EBT Processor.

The EBT Processor then continues processing by:

- Accepting the Adjustment Record Request from the EPS

- Retrieving the Unposted Adjustment Records and formatting the response for the EPS

- Sending the Unposted Adjustment Record response back to the EPS.

The EPS then continues by:

- Receiving the Unposted Adjustment Record from the EBT Processor

- Generating the Adjustment/Credit Request.

The Card Acceptor Device then continues by:

- Receiving the Adjustment/Credit Request

- Crediting and Debiting the card prescription balances with Erroneous WIB Benefit Credits/Debits

- Generating the Adjustment /Credit Completion Response, which is received with the log by the EPS and sent to the EBT Processor for reporting purposes.

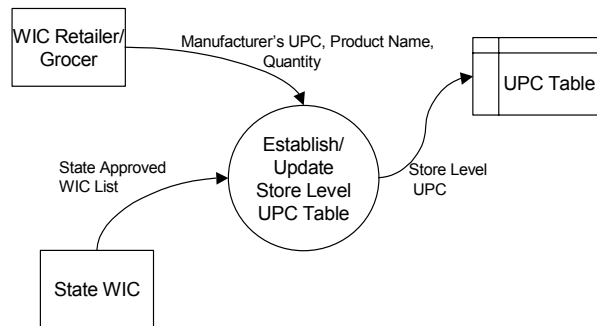### C.2.8   ESTABLISH/UPDATE STORE LEVEL UPC

The maintenance of the Store Level UPC Table may take place in two different ways:

- **Store-Initiated UPC changes**. As a result of the WIC retailer contracting process, the State agency creates an automated file of WIC Eligible Item List and sends it to the store.  The store establishes and maintains its own Store Level UPC Table based on the WIC Eligible Item List.  WIC eligible items are flagged in the store's UPC table. When a new food item is added or an existing item replaced, the retailer creates a file of potential UPCs that is uploaded to State agency for final approval (depending on the system design, this could be accomplished by updating the UPC database with changes or by replacing the entire database).  Once approved, the State agency downloads the WIC eligible UPC to the store for inclusion in the store's UPC/PLU File.  The store updates its own Store Level UPC Table with the additions and/or changes received in the downloaded UPC/PLU Store File.

- **State-Initiated UPC changes.**  The State agency creates and maintains the WIC Eligible Item List and Store Level UPC Table.  When the store wants to add a new item or change an item, it manually sends the new/changed UPC to the State agency for validation.   The State agency

approves the food UPCs for inclusion in the database and updates the Store Level UPC Table. The updated Store Level UPC Table is downloaded to the store and replaces the former Store Level UPC Table.

- In this process, shown in the Data Flow Diagram below, the manufacturer's UPC (or in some cases, store unique UPC) is matched against the State WIC Approved Food UPC List so that WIC Eligible food items can be flagged for the store-unique UPC Table.



Data Flow: WIC Food Delivery-Inventory/Warehousing
Establish/Update Store Level UPC Table

### C.2.8.1 Store Maintained Store Level UPC Table

The EPS establishes the Store Level UPC Table by:

- Prompting for entry of the manufacturer's UPC code

- Accepting the manufacturer's UPC code

- Validating that the UPC is on WIC Eligible Item List by comparing the UPC with the State WIC Eligible Item List, and, if it is on WIC Eligible Item List, flagging the item as WIC eligible in the Store Level UPC Table.

The EPS also updates the Store Level UPC Table by:

- Prompting for entry of the new manufacturer's UPC code

- Accepting the new manufacturer's UPC code

- Validating that UPC is on WIC Eligible Item List by comparing the UPC food category/subcategory with State WIC Eligible Item List and, if it is, adding the item as a record "change" or "add" in UPC/PLU Store File

- Uploading the UPC/PLU Store File to the State agency (the file contains potential additions/changes for State agency approval)

- Receiving the download of the UPC/PLU Store File (the file contains approved additions/changes from the State Agency)

- Updating the Store Level UPC Table with additions and changes received in the UPC/PLU Store File.

### C.2.8.2    State Maintained Store Level UPC Table

The EPS also establishes the Store Level UPC Table in the State Maintained

UPC Table process by:

- Receiving the Store Level UPC Table from state

- Updating the store universal UPC Table with flagged WIC items from Store Level UPC Table.

The EPS also updates the Store Level UPC Table by:

- Transmitting new/changed UPCs to the State Agency

- Receiving the download of the UPC/PLU Store File (file contains complete replacement of Store Level UPC Table from state)

- Replacing the existing Store Level UPC Table with the new Store Level UPC Table from the UPC/PLC Store File.